Project WILD

K-12 Curriculum &Activity Guide

Correlations to Florida State Standards (Correlations)

Understanding and Using the Project WILD K-12 Curriculum & Activity Guide (Guide) Standards Correlations

Focus:
The standards listed in the Correlations are Florida Next Generation Sunshine State Standards (NGSSS) for Science and Social Studies and Florida Standards (FS) for Language Arts and Mathematics. Correlated standards are arranged in order of increasing grade level and highlighted by color for each subject area – Science | Language Arts | Mathematics | Social Studies

Grades:
Targeted grades for each activity in the Guide are listed in the Correlations. Teachers will need to determine if a standard that serves multiple grade levels is or is not appropriate for their particular student audience. Many activities lend themselves well to being adapted up or down for other grade levels not targeted by the activity, in which case, additional standards not listed in the Correlations may apply.

Applicability of Standards to Activities:
Correlated standards are keyed to the *Procedure* (main activity), as well as *Extensions*, *Variations*, and *In Step with STEM* portions of each activity. Teachers will need to select correlated standards for the portions of the activity they are incorporating into their lesson plans. Should teachers elect to use C-Palms connections, additional standards not listed in the Correlations may apply.

Level of Complexity:
The **Level of Complexity** refers to the cognitive complexity and depth of knowledge designation for that standard as established by the Florida Department of Education.

Each standard listed in a Correlations is hyperlinked to C-Palms. More information about levels of cognitive complexity for each subject area can be found there under "Standards/Content Complexity Rating/Content Complexity Common Definitions." If no level of complexity has been determined for listing on C-Palms, the Correlations will display a dash (-) to so denote it.

Level
Level 1: Recall
Level 2: Basic application of concepts or skills
Level 3: Strategic thinking and complex reasoning
Level 4: Extended thinking and complex reasoning

C-Palms Links:

Each standard is hyperlinked to C-Palms. There are substantial resources on C-Palms to support each activity. Included are items such as, but not limited to:

- **Access Points** – Expectations for students with significant cognitive disabilities to access the general education curriculum, which reflect the core intent of the Standards with reduced levels of complexity. Each standard is broken down into Independent, Supported, and Participatory elements.
- **Related Resources –** Numerous resources to facilitate teaching and learning are available for every standard/benchmark. Below are a few examples:
    - **Teaching Ideas and Lesson Plans** – Many of these facilitate extension of Guide lessons. For example, SC.912.L.15.13 in Bottleneck Genes provides a lesson plan entitled "Is Natural Selection Random." This lesson is Florida specific to actual events and data, and reinforces and extends the concepts addressed in this activity.
    - **Professional Development –** For those educators who want more information about incorporating specific content or skills development into their lessons, websites and other resources are offered. For example, SC.8.N.1.6 (correlated to numerous activities in the Guide) offers a professional development entitled "Generating and Testing Hypotheses" that summarizes the research-based rationale for using inquiry-based lessons. It also provides specific suggestions to help teachers guide students in generating predictions, designing investigations to test the validity of their hypotheses, and strategies to promote critical thinking.
    - **Video/Audio Animations, Images/Photographs, Educational Games, Presentations/Slide Shows, Worksheets, Center Ideas**, and other teaching tools – Numerous standards provide tools to support or expand Guide lessons. For example: SC.5.L.17.1 (correlated to numerous activities in the Guide) provides an online book entitled Animal Adaptations by Renee Boogren. The book is appropriate for Florida since all of the pictured animals are marine making this a nice bridge to other lessons in Aquatic Project WILD.
    - **STEM Lessons** – Many Benchmarks offer STEM lessons, most of which require C-Palms membership to access (free and easy to sign up). The majority of the lessons are model-eliciting activities (MEAs), which encourage students to invent and test models.
    - **Student Resources** – Mini-lessons intended for student use. For example, SC.7.E.6.6 (correlated to several activities in the Guide) offers four (4) student tutorials, one of which is "Human Impact: Deforestation."

Organization:

The correlated activities appear in order as they are listed in the Project WILD K-12 Curriculum & Activity Guide, and are grouped by their topic area (such as Wildlife Populations, Interdependence, etc.) that directly correspond to the conceptual framework.

Acknowledgements:

Florida State Standards correlations to the Project WILD K-12 Curriculum & Activity Guide was made possible by an agreement between Florida Project WILD/Florida Youth Conservation Centers Network/Florida Fish and Wildlife Conservation Commission and Gugliotti Environmental and Conservation Education Services – Nature Teach.

Insect Inspection

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-2	2
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and natural motion, and compare their observations with others.	SC	Practice of Science	Nature of Science	K-2	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-2	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	Practice of Science	Nature of Science	K-2	1
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	Practice of Science	Nature of Science	K-2	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	Practice of Science	Nature of Science	K-2	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-2	4
LAFS.2.W.3.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).	LA	Research to Build and Present Knowledge	Writing	K-2	4

Insect Inspections

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.1.MD.3.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	MA	Represent and Interpret Data	Measurement and Data	K-2	3

Insect Inspections

Color Crazy

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	SC	Interdependence	Life Science	K-5	2
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	K-5	2

What's Wild? Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-5	2
SC.3.L.15.1	Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.	SC	Diversity and Evolution of Living Organisms	Life Science	K-5	2
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	Heredity and Reproduction	Life Science	K-5	3
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	SC	Heredity and Reproduction	Life Science	K- 5	3

Interview a Spider

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	4
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
LAFS.4.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases as found in grade level appropriate texts, including those that signal precise actions, emotions, or states of being (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation).	LA	Vocabulary Acquisition and Use	Language	3-5	1
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	4
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.L.2.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems.	LA	Knowledge of Language	Language	3-5	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	2
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
LAFS.K12.SL.2.6	Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-5	2

Interview a Spider

Monarch Marathon

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	SC	Interdependence	Life Science	3-8	2
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	SC	Heredity and Reproduction	Life Science	3-8	3
SC.4.L.16.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Heredity and Reproduction	Life Science	3-8	2
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	SC	Interdependence	Life Science	3-8	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3
SC.68.CS-CS.1.2	Create or modify and use a simulation to analyze and illustrate a concept in depth (i.e., use a simulation to illustrate a genetic variation), individually and collaboratively.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species)	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-

Monarch Marathon

Limiting Factors: How Many Bears?

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.3.RI.4.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.	LA	Range of Reading and Level of Text Complexity	Reading – Informational Test	3-8	3
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
LAFS.4.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases as found in grade level appropriate texts, including those that signal precise actions, emotions, or states of being (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation).	LA	Vocabulary Acquisition and Use	Language	3-8	1
LAFS.4.RI.4.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	LA	Range of Reading and Level of Text Complexity	Reading – Informational Test	3-8	2
LAFS.5.RI.4.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.	LA	Range of Reading and Level of Text Complexity	Reading – Informational Test	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	3-8	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3
SC.35.CS-CS.1.3	Answer a question, individually and collaboratively, using data from a simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-8	-

Limiting Factors: How Many Bears?

Tracks! Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster /Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.L.15.1	Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.1.6	Infer based on observation.	SC	The Practice of Science	Nature of Science	3-8	3
LAFS.4.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases as found in grade level appropriate texts, including those that signal precise actions, emotions, or states of being (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation)	LA	Vocabulary Acquisition and Use	Language	3-8	1
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	2

Oh Deer! Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-12	2
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-12	-
SC.35.CS-CS.1.3	Answer a question, individually and collaboratively, using data from a simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-12	-
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and describe distributions	Statistics and Probability	3-12	3
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	Interdependence	Life Science	3-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-12	3
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	MA	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-12	-
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	3-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	3-12	3
SC.912.L.17.6	Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.	SC	Interdependence	Life Science	3-12	2
SC.912.CS-CS.1.5	Represent and understand natural phenomena using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-12	-

Wild Words

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	The Practice of Science	Nature of Science	3-12	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	3-12	3
SC.4.N.2.1	Explain that science focuses solely on the natural world.	SC	The Characteristics of Scientific Knowledge	Nature of Science	3-12	2
LAFS.4.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.5.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	The Practice of Science	Nature of Science	3-12	3
SC.6.N.2.3	Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.	SC	The Characteristics of Scientific Knowledge	Nature of Science	3-12	1
LAFS.68.WHST.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	3-12	3
LAFS.6.W.2.6	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	LA	Production and Distribution of Writing	Writing	3-12	2
LAFS.6.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.7.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.K12.LAW.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	2
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.K12.LAW.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	2
LAFS.K12.W.2.6	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	LA	Production and Distribution of Writing	Writing	3-12	2
LAFS.1112.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	LA	Research to Build and Present Knowledge	Writing	3-12	3
LAFS.1112.WHST.4.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	LA	Range of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	3-12	3
LAFS.910.W.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	LA	Range of Writing	Writing	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.4.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	LA	Range of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	3-12	3

Carrying Capacity

Wildlife Populations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
MAFS.7.SP.2.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*	MA	Draw informal comparative inferences about two populations	Statistics and Probability	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	6-12	2
MAFS.8.EE.2.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*	MA	Understand the connections between proportional relationships, lines, and linear equations	Expressions and Equations	6-12	2
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	6-12	-
SC.912.CS-CS.1.5	Represent and understand natural phenomena using modeling and simulation.	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	6-12	-

Carrying Capacity

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	6-12	3
MAFS.912.F-LE.2.5	Interpret the parameters in a linear or exponential function in terms of a context.	MA	Interpret expressions for functions in terms of the situation they model.	Functions: Linear, Quadratic, & Exponential Models	6-12	2

Carrying Capacity

Graphananimal

Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.K.G.1.4	Differentiate land and water features on simple maps and globes.	SS	The World in Spatial Terms	Geography	K-2	-
SC.1.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-2	3
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	The Practice of Science	Nature of Science	K-2	2
MAFS.1.MD.3.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	MA	Represent and Interpret Data	Measurement and Data	K-2	3
SC.K2.CS-CS.1.3	Describe how models represent a real-life system (e.g., globe or map).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	K-2	-
SC.K2.CS-CP.1.1	Identify different kinds of data (e.g., text, charts, graphs, numbers, pictures, audio, video, and collections of objects).	SC	Data Analysis	Computer Science – Communication Systems and Computing	K-2	-
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	Interdependence	Life Science	K-2	2

Benchmark	Description	Subject	Idea/Cluster /Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-2	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-2	3
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	The Practice of Science	Nature of Science	K-2	2
MAFS.2.MD.4.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple, put-together, take-apart, and compare problems using information presented in a bar graph.	MA	Represent and Interpret Data	Measurement and Data	K-2	2

Graphananimal

What's That, Habitat? Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.K.E.1.4	Identify the difference between basic needs and wants.	SS	Beginning Economics	Economics	K-5	-
SC.K2.CS-CS.2.1	Arrange or sort information into useful order, such as sorting students by birth date, with or without technology.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	K-5	-
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	Interdependence	Life Science	K-5	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-5	2

My Kingdom for a Shelter

Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.N.1.3	Keep records as appropriate -- such as pictorial records -- of investigations conducted.	SC	The Practice of Science	Nature of Science	K-8	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features	SC	The Practice of Science	Nature of Science	K-8	3
LAFS.K12.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	Interdependence	Life Science	K-8	1
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	Interdependence	Life Science	K-8	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-8	2
SC.3.N.1.3	Keep records as appropriate -- such as pictorial records -- of investigations conducted.	SC	The Practice of Science	Nature of Science	K-8	2
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	K-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	4
LAFS.4.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	4
LAFS.5.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	2
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	2
LAFS.68.WHST.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	K-8	3
LAFS.7.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3

My Kingdom for a Shelter

Map That Habitat

Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-8	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	4
SS.3.G.1.2	Review basic map elements (coordinate grid, cardinal and intermediate directions, title, compass rose, scale, key/legend with symbols) .	SS	The World in Spatial terms	Geography	3-8	-
LAFS.4.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	4
SS.4.G.1.4	Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).	SS	The World in Spatial terms	Geography	3-8	-
LAFS.5.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information	SS	The World in Spatial terms	Geography	3-8	-
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	2
LAFS.68.WHST.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	K-8	3
SS.6.G.1.5	Use scale, cardinal, and intermediate directions, and estimation of distances between places on current and ancient maps of the world.	SS	Understand how to use maps and other geographic representations, tools, and technology to report information.	Geography	3-8	-
LAFS.7.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3
LAFS.8.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	K-8	3

Habitat Circles

Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-8	2
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	K-8	-
SC.35.CS-CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	K-8	-
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	K-8	2
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	K-8	2
SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	K-8	2
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	Understand how human actions can impact the environment	Geography	K-8	-

Which Niche? Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build Knowledge	Writing	3-8	2
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build Knowledge	Writing	3-8	2
SC.35.CS-CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-8	-
SC.35.CS-CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	Digital Tools	Computer Science – Communication Systems and Computing	3-8	-
SC.4.L.17.3	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	Interdependence	Life Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build Knowledge	Writing	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build Knowledge	Writing	3-8	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
SC.68.CS-PC.3.1	Answer research questions using digital information resources.	SC	Evaluation of Digital Information Resources	Computer Science – Personal, Community, Global and Ethical Impact	3-8	-
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

Which Niche?

Urban Nature Search — Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2
SC.3.N.1.6	Infer based on observation.	SC	The Practice of Science	Nature of Science	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 *topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	SC	Heredity and Reproduction	Life Science	3-8	3
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	3-8	3
LAFS.4.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade *4 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	The Practice of Science	Nature of Science	3-8	3

Urban Nature Search

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3

Urban Nature Search

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3

Raindrops and Ranges — Habitats, Ecosystems, and Niches

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.6.E.7.6	Differentiate between weather and climate.	SC	Earth Systems and Patterns	Earth and Space Science	6-12	2
SS.6.G.1.2	Analyze the purposes of map projections (political, physical, special purpose) and explain the applications of various types of maps.	SS	Understand how to use maps and other geographic representations, tools, and technology to report information.	Geography	6-12	-
SC.68.CS-CC.1.3	Design, develop, and publish a collaborative digital product using a variety of digital tools and media-rich resources that demonstrate and communicate concepts to inform, persuade, and/or entertain.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	6-12	-
SC.68.CS-PC.3.1	Answer research questions using digital information resources.	SC	Evaluation of Digital Information Resources	Computer Science – Personal, Community, Global and Ethical Impact	6-12	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	Earth Structures	Earth and Space Science	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
MAFS.7.G.2.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	MA	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	Geometry	6-12	2
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SC	Understand How Human Actions Can Impact the Environment	Geography	6-12	-
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.912.CS-CS.1.3	Explain how data analysis is used to enhance the understanding of complex natural and human systems.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.G.3.2	Use geographic terms and tools to explain how weather and climate influence the natural character of a place.	SS	Understand the relationships between the Earth's ecosystems and the populations that dwell within them.	Geography	6-12	-
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	SC	Interdependence	Life Science	6-12	2
SS.912.P.2.10	Interpret graphical representations of data as used in both quantitative and qualitative methods.	SS	Scientific Inquiry Domain/Research Method, Measurement, and Statistics	Psychology	6-12	-

Raindrops and Ranges

Ants on a Twig

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-2	2
SC.K.N.1.3	Keep records as appropriate -- such as pictorial records -- of investigations conducted.	SC	The Practice of Science	Nature of Science	K-2	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	The Practice of Science	Nature of Science	K-2	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	The Practice of Science	Nature of Science	K-2	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-2	2
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	Interdependence	Life Science	K-2	1
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	Organization and Development of Living Organisms	Life Science	K-2	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	The Practice of Science	Nature of Science	K-2	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	The Practice of Science	Nature of Science	K-2	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	The Practice of Science	Nature of Science	K-2	2
SC.2.N.1.4	Explain how particular scientific investigations should yield similar conclusions when repeated.	SC	The Practice of Science	Nature of Science	K-2	3
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-2	3

Ants on a Twig

Busy Bees, Busy Blooms — Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K2.CS-CTS.1.3	Describe how models represent a real-life system (e.g., globe or map).	SC	Models and Simulations	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	K-5	-
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers	SC	Organization and Development of Living Organisms	Life Science	K-5	1
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	Organization and Development of Living Organisms	Life Science	K-5	2
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	K-5	2
C.35.CS-CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	Models and Simulations	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	K-5	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	SC	Heredity and Reproduction	Life Science	K-5	2

Busy Bees, Busy Blooms

Seed Need

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.	SC	Properties of Matter	Physical Science	K-5	-
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	Organization and Development of Living Organisms	Life Science	K-5	1
SC.1.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-5	3
SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.	SC	Properties of Matter	Physical Science	K-5	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-5	3
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	The Practice of Science	Nature of Science	K-5	2
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	Organization and Development of Living Organisms	Life Science	K-5	2
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	K-5	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	K-5	3
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Models and Simulations	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	K-5	-
C.35.CS-CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	Models and Simulations	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	K-5	-
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	SC	Heredity and Reproduction	Life Science	K-5	2
SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Life Science	K-5	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Life Science	K-5	2
SC.4.N.1.8	Recognize that science involves creativity in designing experiments.	SC	The Practice of Science	Life Science	K-5	2
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	The Practice of Science	Life Science	K-5	2

Seed Need

Habicache

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
SS.3.G.1.2	Review basic map elements (coordinate grid, cardinal and intermediate directions, title, compass rose, scale, key/legend with symbols).	SS	The World in Spatial Terms	Geography	3-8	-
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
SS.4.G.1.4	Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).	SS	The World in Spatial Terms	Geography	3-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.	SC	The Characteristics of Scientific Knowledge	Nature of Science	3-8	2
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	2
SS.5.G.1.2	Use latitude and longitude to locate places.	SS	The World in Spatial Terms	Geography	3-8	-
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information.	SS	The World in Spatial Terms	Geography	3-8	-
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	Understand how human actions can impact the environment	Geography	3-8	-

Good Buddies

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	2
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4

Good Buddies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2

Good Buddies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4

Good Buddies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2

Good Buddies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	Interdependence	Life Science	3-8	2

Good Buddies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3

Good Buddies

Bat Blitz

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.K12.MP.4.1	Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematical Practice	3-8	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	3-8	-
SC.35.CS-CS.1.3	Answer a question, individually and collaboratively, using data from a simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.35.CS-CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	Data Analysis	Computer Science – Communication Systems and Computing	3-8	-
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3

Bat Blitz

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.7.RP.1.2	Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.* d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.	MA	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Ratios and Proportional Relationships	3-8	2
MAFS.7.RP.1.3	Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.*	MA	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Ratios and Proportional Relationships	3-8	2

Bat Blitz

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.7.SP.1.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*	MA	Use random sampling to draw inferences about a population	Statistics and Probability	3-8	3
MAFS.7.SP.3.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*	MA	Investigate chance processes and develop, use, and evaluate probability models.	Statistics and Probability	3-8	2
SC.8.N.1.4	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	2

Bat Blitz

Owl Pellets

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	3-8	2
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	Interdependence	Life Science	3-8	1
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	SC	Interdependence	Life Science	3-8	2
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	SC	Interdependence	Life Science	3-8	2
SC.4.N.1.4	Attempt reasonable answers to scientific questions and cite evidence in support.	SC	The Practice of Science	Nature of Science	3-8	3
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2

Owl Pellets

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2

Owl Pellets

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	Interdependence	Life Science	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
SC.8.N.1.4	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	3

Owl Pellets

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4

Owl Pellets

Trophic Transfer

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	Interdependence	Life Science	3-8	1
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.35.CS-CS.1.3	Answer a question, individually and collaboratively, using data from a simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.35.CS-CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	Data Analysis	Computer Science – Communication Systems and Computing	3-8	-
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	SC	Interdependence	Life Science	3-8	2
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	SC	Interdependence	Life Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases as found in grade level appropriate texts, including those that signal precise actions, emotions, or states of being (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation).	LA	Vocabulary Acquisition and Use	Language	3-5	1
LAFS.6.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	3-8	1
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	Interdependence	Life Science	3-8	3
LAFS.7.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	3-8	1
SC.8.L.18.3	Construct a scientific model of the carbon cycle to show how matter and energy are continuously transferred within and between organisms and their physical environment.	SC	Matter and Energy Transformations	Life Science	3-8	3
LAFS.8.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	3-8	1

Trophic Transfer

Environmental Barometer

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-12	3
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-12	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-12	2
SC.3.N.1.6	Infer based on observation.	SC	The Practice of Science	Nature of Science	3-12	3
SC.35.CS-CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	Data Analysis	Computer Science – Communication Systems and Computing	3-12	-
SC.35.CS-CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	Data Analysis	Computer Science – Communication Systems and Computing	3-12	-
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-12	3
SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-12	3
SC.4.N.1.4	Attempt reasonable answers to scientific questions and cite evidence in support.	SC	The Practice of Science	Nature of Science	3-12	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Nature of Science	3-12	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	3-12	3
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	3-12	3

Environmental Barometer

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	2
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	The Practice of Science	Nature of Science	3-12	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	3– 12	3
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-12	4
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-12	-
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	3-12	3

Environmental Barometer

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-12	2
MAFS.7.SP.1.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	MA	Use random sampling to draw inferences about a population.	Statistics and Probability	3-12	2
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	3-12	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-12	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-12	4

Environmental Barometer

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	SC	Interdependence	Life Science	3-12	2
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	3-12	2
SC.912.N.1.7	Recognize the role of creativity in constructing scientific questions, methods and explanations.	SC	The Practice of Science	Nature of Science	3-12	1
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	2
MAFS.912.S-IC.1.1	Understand statistics as a process for making inferences about population parameters based on a random sample from that population.	SC	Understand and evaluate random processes underlying statistical experiments	Statistics & Probability: Making Inferences & Justifying Conclusions	3-12	1

Environmental Barometer

Phenology at Play

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.6.N.2.2	Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.	SC	Characteristics of Scientific Knowledge	Nature of Science	6-12	2
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	6-12	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	6-12	-
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	Diversity and Evolution of Living Organisms	Life Science	6-12	3
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	Interdependence	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	6-12	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.3.5	Describe the function of models in science, and identify the wide range of models used in science.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	6-12	2
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2

Eco-Enrichers

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.L.3.6	Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	The Practice of Science	Nature of Science	6-12	3
LAFS.6.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.68.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style and objective tone. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6 – 12	3

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	6-12	2
SC.7.N.1.4	Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.	SC	The Practice of Science	Nature of Science	6-12	2
LAFS.7.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.8.L.18.3	Construct a scientific model of the carbon cycle to show how matter and energy are continuously transferred within and between organisms and their physical environment.	SC	Matter and Energy Transformations	Life Science	6-12	3
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	6-12	2
SC.8.P.8.4	Classi1y and compare substances on the basis of characteristic physical properties that can be demonstrated or measured; for example, density, thermal or electrical conductivity, solubility, magnetic properties, melting and boiling points, and know that these properties are independent of the amount of the sample.	SC	Properties of Matter	Physical Science	6-12	2
LAFS.8.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4
LAFS.910.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	4

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	SC	Interdependence	Life Science	6-12	2
SC.912.N.1.1	Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following: 1. **Pose questions about the natural world,** (Articulate the purpose of the investigation and identify the relevant scientific concepts). 2. **Conduct systematic observations,** (Write procedures that are clear and replicable. Identify observables and examine relationships between test (independent) variable and outcome (dependent) variable. Employ appropriate methods for accurate and consistent observations; conduct and record measurements at appropriate levels of precision. Follow safety guidelines). 3. **Examine books and other sources of information to see what is already known,** 4. **Review what is known in light of empirical evidence,** (Examine whether available empirical evidence can be interpreted in terms of existing knowledge and models, and if not, modify or develop new models). 5. **Plan investigations,** (Design and evaluate a scientific investigation).	SC	The Practice of Science	Nature of Science	6-12	3

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.1.1 (continued)	6. **Use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs),** (Collect data or evidence in an organized way. Properly use instruments, equipment, and materials (e.g., scales, probeware, meter sticks, microscopes, computers) including set-up, calibration, technique, maintenance, and storage). 7. **Pose answers, explanations, or descriptions of events,** 8. **Generate explanations that explicate or describe natural phenomena (inferences),** 9. **Use appropriate evidence and reasoning to justify these explanations to others,** 10. **Communicate results of scientific investigations, and** 11. **Evaluate the merits of the explanations produced by others.**	SC	The Practice of Science	Nature of Science	6-12	3
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	6-12	2
SC.912.N.1.7	Recognize the role of creativity in constructing scientific questions, methods and explanations.	SC	The Practice of Science	Nature of Science	6-12	1
SC.912.P.8.2	Differentiate between physical and chemical properties and physical and chemical changes of matter.	SC	Matter	Physical Science	6-12	2
SC.912.P.8.11	Relate acidity and basicity to hydronium and hydroxyl ion concentration and pH.	SC	Matter	Physical Science	6-12	2

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2

Eco-Enrichers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	4

Eco-Enrichers

Birds of Prey

Interdependence

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-12	4
MAFS.K12.MP.4.1	**Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematics Practice	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation.	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	9-12	-
SC.912.CS-CS.1.2	Formulate, refine, and test scientific hypotheses using models and simulations.	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	9-12	-
SC.912.CS-CS.1.3	Explain how data analysis is used to enhance the understanding of complex natural and human systems.	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	9-12	-
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	9-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	SC	Interdependence	Life Science	9-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	9-12	3
SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	SC	Interdependence	Life Science	9-12	2
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
MAFS.912.S-IC.1.1	Understand statistics as a process for making inferences about population parameters based on a random sample from that population.	MA	Understand and evaluate random processes underlying statistical experiments.	Statistics & Probability: Making Inferences & Justifying Conclusions	9-12	1

Surprise Terrarium

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	The Practice of Science	Nature of Science	K-2	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	The Practice of Science	Nature of Science	K-2	2
LAFS.K12.L.3.6	Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	K-2	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	Organization and Development of Living Organisms	Life Science	K-2	1
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	Interdependence	Life Science	K-2	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	The Practice of Science	Nature of Science	K-2	2
SS.1.C.2.4	Show respect and kindness to people and animals.	SS	Civic and Political Participation	Civics and Government	K-2	-
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-2	2

Surprise Terrarium

Thicket Game

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	Interdependence	Life Science	K-5	2
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulation	Computer Science – Communication Systems and Computing	K-5	-
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	SC	Heredity and Reproduction	Life Science	K-5	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	K-5	2
LAFS.5.W.3.8	Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.	LA	Research to Build and Present Knowledge	Writing	K-5	2

What Bear Goes Where? Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	SC	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	3
LAFS.K.W.3.7	Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-5	4
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	Interdependence	Life Science	K-5	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	Interdependence	Life Science	K-5	2
LAFS.2.W.3.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	Diversity and Evolution of Living Organisms	Life Science	K-5	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	K-5	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	2

What Bear Goes Where?

Keeping Cool

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-5	4
SC.3.L.15.1	Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.	SC	Diversity and Evolution of Living Organisms	Life Science	3-5	2
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-5	3
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-5	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-5	2
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	4
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-5	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Nature of Science	3-5	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	3-5	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	4
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-5	2
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	The Practice of Science	Nature of Science	3-5	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	2

Keeping Cool

Adaptation Artistry

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	3-8	2
SC.3.L.15.1	Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	2
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3

Adaptation Artistry

Note: Numerous Visual Arts standards apply to this activity.

Muskox Maneuvers

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

Muskox Maneuvers

Quick Frozen Critters

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.3.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.35.CS-CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-

Quick Frozen Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	Interdependence	Life Science	3-8	2

Quick Frozen Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2

Quick Frozen Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3

Quick Frozen Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2

Quick Frozen Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

Quick Frozen Critters

Forest in a Jar

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	4
MAFS.K12.MP.4.1	**Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematical Practice	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.K12.MP.5.1	**Use appropriate tools strategically.** Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.	MA	Use Appropriate Tools Strategically	Mathematical Practice	3-8	2
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	The Practice of Science	Nature of Science	3-8	3

Forest in a Jar

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2
SC.3.N.1.7	Explain that empirical evidence is information, such as observations or measurements, that is used to help validate explanations of natural phenomena.	SC	The Practice of Science	Nature of Science	3-8	3
SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	1
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.35.CS-CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	Data Analysis	Computer Science – Communication Systems and Computing	3-8	-
SC.4.N.1.4	Attempt reasonable answers to scientific questions and cite evidence in support.	SC	The Practice of Science	Nature of Science	3-8	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	3-8	3
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	The Practice of Science	Nature of Science	3-8	2
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.	SC	The Characteristics of Scientific Knowledge	Nature of Science	3-8	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	The Practice of Science	Nature of Science	3-8	3
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	SC	The Practice of Science	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-8	-
MAFS.6.SP.1.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*	MA	Develop Understanding of Statistical Variability1	Statistics and Probability	3-8	1

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	3-8	3
SC.7.N.1.6	Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.	SC	The Practice of Science	Nature of Science	3-8	2
SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2

Forest in a Jar

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.8.N.1.3	Use phrases such as "results support" or "fail to support" in science, understanding that science does not offer conclusive 'proof' of a knowledge claim.	SC	The Practice of Science	Nature of Science	3-8	2
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

A Home Away from Home — Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	2
SC.8.N.3.1	Select models useful in relating the results of their own investigations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	6-8	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	Science and Society	Nature of Science	6-8	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	3

Water Mileage

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-5	4
MAFS.K12.MP.6.1	**Attend to precision.** Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	MA	Attend to Precision	Mathematical Practice	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
MAFS.6.RP.1.2	Understand the concept of a unit rate a/b associated with a ratio a:b with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*	MA	Understand ratio concepts and use ratio reasoning to solve problems	Ratio and Proportional Relationships	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.RP.1.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. b. Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?* c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. e. Understand the concept of Pi as the ratio of the circumference of a circle to its diameter	MA	Understand ratio concepts and use ratio reasoning to solve problems	Ratio and Proportional Relationships	6-12	2
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3

Water Mileage

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
MAFS.7.EE.2.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*	MA	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Expressions and Equations	6-12	2
MAFS.7.RP.1.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.*	MA	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Ratios and Proportional Relationships	6-12	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Water Mileage

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	6-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2

Water Mileage

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
MAFS.912.N-Q.1.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	MA	Reason quantitatively and use units to solve problems	Number & Quantity: Quantities	6-12	2
SS.912.G.5.6	Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.	SS	Understand how human actions can impact the environment	Geography	9-12	-

Water Mileage

Fire Ecologies

Changes and Adaptations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.CS-CS.1.3	Explain how data analysis is used to enhance the understanding of complex natural and human systems.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	9-12	-
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	SC	Interdependence	Life Science	9-12	2
SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	SC	Interdependence	Life Science	3-12	2
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	9-12	3
SC.912.N.1.7	Recognize the role of creativity in constructing scientific questions, methods and explanations.	SC	The Practice of Science	Nature of Science	9-12	1
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2

Fire Ecologies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
SS.912.G.3.2	Use geographic terms and tools to explain how weather and climate influence the natural character of a place.	SS	Understand the relationships between the Earth's ecosystems and the populations that dwell within them.	Geography	9-12	-
SS.912.G.5.5	Use geographic terms and tools to analyze case studies of policies and programs for resource use and management.	SS	Understand how human actions can impact the environment.	Geography	6-12	-
SS.912.G.5.6	Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.	SS	Understand how human actions can impact the environment	Geography	9-12	-

Fire Ecologies

Time Lapse

Biodiversity

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
SC.35.CS-CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	3
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	3
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	Diversity and Evolution of Living Organisms	Life Science	3-8	3

Time Lapse

Here Today, Gone Tomorrow — Biodiversity

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6 - 12	2
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	Diversity and Evolution of Living Organisms	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	6-12	4
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.1.2	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.2	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
SC.912.L.15.3	Describe how biological diversity is increased by the origin of new species and how it is decreased by the natural process of extinction.	SC	Diversity and Evolution of Living Organisms	Life Science	6-12	2
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	SC	Interdependence	Life Science	6-12	3
SS.912.G.5.4	Analyze case studies of how humans impact the diversity and productivity of ecosystems.	SS	Understand how human actions can impact the environment.	Geography	6-12	-

Here Today, Gone Tomorrow

Ecosystem Architects — Biodiversity

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	Interdependence	Life Science	6-12	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3

Ecosystem Architects

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
SC.912.L.17.6	Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.17.9	Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.	SC	Interdependence	Life Science	6-12	2
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-112	4
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SS.912.G.5.4	Analyze case studies of how humans impact the diversity and productivity of ecosystems.	SS	Understand how human actions can impact the environment.	Geography	6-12	-

Ecosystem Architects

Bottleneck Genes

Biodiversity

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
SC.68.CS-CS.1.2	Create or modify and use a simulation to analyze and illustrate a concept in depth (i.e., use a simulation to illustrate a genetic variation), individually and collaboratively.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	Diversity and Evolution of Living Organisms	Life Science	6-12	3
SC.7.L.16.1	Understand and explain that every organism requires a set of instructions that specifies its traits, that this hereditary information (DNA) contains genes located in the chromosomes of each cell, and that heredity is the passage of these instructions from one generation to another.	SC	Heredity and Reproduction	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.912.CS-CS.1.5	Represent and understand natural phenomena using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-

Bottleneck Genes

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.15.13	Describe the conditions required for natural selection, including: overproduction of offspring, inherited variation, and the struggle to survive, which result in differential reproductive success.	SC	Diversity and Evolution of Living Organisms	Life Science	6-12	2
SC.912.L.16.2	Discuss observed inheritance patterns caused by various modes of inheritance, including dominant, recessive, codominant, sex-linked, polygenic, and multiple alleles.	SC	Heredity and Reproduction	Life Science	6-12	3
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.10	Diagram and explain the biogeochemical cycles of an ecosystem, including water, carbon, and nitrogen cycle.	SC	Interdependence	Life Science	9-12	2
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Bottleneck Genes

First Impressions

Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.K12.SL.1.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	Comprehension and Collaboration	Speaking and Listening	K-5	2
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	2
LAFS.1.L.3.5	With guidance and support from adults, demonstrate understanding, word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes). c. Identify real-life connections between words and their use (e.g., note places at home that are cozy). d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	LA	Vocabulary Acquisition and Use	Language	K-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1.SL.2.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	2
LAFS.2.W.1.3	Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.	LA	Text Types and Purposes	Writing	K-5	3
LAFS.2.W.3.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	2
LAFS.3.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure.	LA	Text Types and Purposes	Writing	K-5	3
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	2
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	K-5	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	4
LAFS.5.RI.3.9	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.	LA	Integration of Knowledge and Ideas	Reading – Informational Texts	K-5	3

First Impressions

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	K-5	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	K-5	2

First Impressions

Fabled Fauna

Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.L.14.2	Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.	SC	Organization and Development of Living Organisms	Life Science	K-5	2
SC.K.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-5	2
LAFS.K12.R.3.9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	LA	Integration of Knowledge and Ideas	Reading	K-5	2
LAFS.K.RL.2.6	With prompting and support, identify the author and illustrator of a story and define the role of each in telling the story.	LA	Craft and Structure	Reading Standards for Literature	K-5	1
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	Practice of Science	Nature of Science	K-5	1
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-5	2
MAFS.2.MD.4.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	MA	Represent and Interpret Data	Measurement and Data	K-5	3
SC.3.N.1.3	Keep records as appropriate -- such as pictorial records -- of investigations conducted.	SC	The Practice of Science	Nature of Science	K-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.35.CS-CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	Data Analysis	Computer Science – Communication Systems and Computing	K-5	-
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	The Practice of Science	Nature of Science	K-5	2
LAFS.4.W.3.8	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	LA	Research to Build and Present Knowledge	Writing	K-5	3

Museum Search for Wildlife — Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-5	3
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CC.1.3	Design, develop, and publish a collaborative digital product using a variety of digital tools and media-rich resources that demonstrate and communicate concepts to inform, persuade, and/or entertain.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	3-8	-
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3

*Note – Numerous Visual Arts standards apply to this activity.

Power of a Song

Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	2
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.4.SL.2.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.6.SL.1.2	Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.7.SL.1.2	Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3

*Note – Numerous Music standards apply to this activity.

Wildlife Symbols

Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2
LAFS.K12.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	2
LAFS.3.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. e. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. f. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. g. Use temporal words and phrases to signal event order. h. Provide a sense of closure.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4
LAFS.4.SL.2.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2

Wildlife Symbols

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-12	4
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-12	2
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3

Wildlife Symbols

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-12	4
LAFS.910.SL.2.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	4

Wildlife Symbols

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	3-12	4
SS.912.A.1.4	Analyze how images, symbols, objects, cartoons, graphs, charts, maps, and artwork may be used to interpret the significance of time periods and events from the past.	SS	Use research and inquiry skills to analyze American history using primary and secondary sources	American History	3-12	-
LAFS.1112.SL.2.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2

Wildlife Symbols

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution). d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	LA	Text Types and Purposes	Writing	3-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	2

Wildlife Symbols

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	3-12	4

Does Wildlife Sell? Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.L.3.5	Demonstrate understanding of word relationships and nuances in word meanings.	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.K12.SL.1.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	Comprehension and Collaboration	Speaking and Listening	3-12	2
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2
SC.35.CS-CS.3.1	Manipulate and publish multimedia artifacts using digital tools (local and online).	SC	Digital Tools	Computer Science – Communication Systems and Computing	3-12	-
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2
SS.4.FL.2.5	Explain that costs are things that a decision maker gives up; benefits are things that a decision maker gains. Make an informed decision by comparing the costs and benefits of spending alternatives.	SS	Buying Goods and Services	Financial Literacy	3-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.4.FL.2.6	Predict how people's spending choices are influenced by prices as well as many other factors, including advertising, the spending choices of others, and peer pressure.	SS	Buying Goods and Services	Financial Literacy	3-12	-
LAFS.4.L.3.5	Demonstrate understanding of word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.4.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases as found in grade level appropriate texts, including those that signal precise actions, emotions, or states of being (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation).	LA	Vocabulary Acquisition and Use	Language	3-12	1
LAFS.5.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.5.RL.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	LA	Craft and Structure	Reading Standards for Literature	3-12	2

Does Wildlife Sell?

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	2
LAFS.6.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., personification) in context. b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical, unwasteful, thrifty*).	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.6.RI.2.6	Determine an authors point of view or purpose in a text and explain how it is conveyed in the text.	LA	Craft and Structure	Reading Standards for Informational Text	3-12	3
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3
SC.68.CS-CC.1.1	Demonstrate an ability to communicate appropriately through various online tools.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	3-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CC.1.3	Design, develop, and publish a collaborative digital product using a variety of digital tools and media-rich resources that demonstrate and communicate concepts to inform, persuade, and/or entertain.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	3-12	-
SC.68.CS-CP.3.2	Create online content (e.g., webpage, blog, digital portfolio, multimedia), using advanced design tools.	SC	Programming Applications	Computer Science – Communication Systems and Computing	3-12	-
LAFS.7.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *refined, respectful, polite, diplomatic, condescending*).	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g. verbal irony, puns) in context. b. Use the relationship between particular words to better understand each of the words. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *bullheaded, willful, firm, persistent, resolute*).	LA	Vocabulary Acquisition and Use	Language Standards	3-12	3
LAFS.8.SL.1.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3
LAFS.910.RI.2.6	Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.	LA	Craft and Structure	Reading Standards for Informational Text	3-12	3
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-12	3
SS.912.P.9.2	Describe the relationship between attitudes (implicit and explicit) and behavior.	SS	Sociocultural Context Domain/Social Interactions	Psychology	3-12	-

Does Wildlife Sell?

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.RI.2.6	Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness or beauty of the text.	LA	Craft and Structure	Reading Standards for Informational Text	3-12	3
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3

Does Wildlife Sell?

Natural Dilemmas

Cultural Perspectives

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.SL.1.3	Evaluate a speakers point of view, reasoning, and use of evidence and rhetoric.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.7.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SC.912.L.17.12	Discuss the political, social, and environmental consequences of sustainable use of land.	SC	Interdependence	Life Science	6-12	3
SS.912.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Type and Purpose	Writing	6-12	4

Natural Dilemmas

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SS.912.P.12.2	Define processes involved in problem solving and decision making.	SS	Cognitive Domain/Thinking	Psychology	6-12	-
SS.912.P.12.5	Describe obstacles to decision making.	SS	Cognitive Domain/Thinking	Psychology	6-12	-
SS.912.P.12.6	Describe obstacles to making good judgments.	SS	Cognitive Domain/Thinking	Psychology	6-12	-

Natural Dilemmas

What You Wear Is What They Wear

Economic, Commercial, and Recreational Considerations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.N.1.3	Keep records as appropriate -- such as pictorial records -- of investigations conducted.	SC	The Practice of Science	The Nature of Science	K-8	2
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	3
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	The Practice of Science	The Nature of Science	K-8	2
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	The Nature of Science	K-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 *topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	2
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	Earth Structures	Earth and Space Science	K-8	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	K-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade *4 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	2

What You Wear Is What They Wear

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	2
SS.5.A.2.3	Compare cultural aspects of Native American tribes from different geographic regions of North America including but not limited to clothing, shelter, food, major beliefs and practices, music, art, and interactions with the environment.	SS	Pre-Columbian North America	American History	K-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	3
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	K-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.68.RST.1.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	Key Ideas and Details	Reading Standards for Literacy in Science and Technical Subjects 6-12	K-8	2
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2

What You Wear Is What They Wear

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	K-8	3
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	K-8	3
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	Understand the relationships between Earth's ecosystems and the populations that dwell within them.	Geography	K-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	Understand how human actions can impact the environment	Geography	K-8	-

Pay to Play

Economic, Commercial, and Recreational Considerations

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2

Pay to Play

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.7.C.3.14	Differentiate between local, state, and federal governments' obligations and services.	SS	Demonstrate an understanding of the principles, functions, and organization of government.	Civics and Government	6-12	-
SS.7.E.2.1	Explain how federal, state, and local taxes support the economy as a function of the United States government.	SS	Understand the fundamental concepts relevant to the institutions, structure, and functions of a national economy.	Economics	6-12	-
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Pay to Play

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Pay to Play

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	SC	Interdependence	Life Science	6-12	3

Pay to Play

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2

Pay to Play

Let's Talk Turkey — Historic and Geographic Development

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
LAFS.4.SL.2.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style.Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3

Let's Talk Turkey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	Understand the relationships between Earth's ecosystems and the populations that dwell within them.	Geography	3-8	-

Let's Talk Turkey

Wild Bill's Fate — Political and Legislative Frameworks

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	2
LAFS.K12.SL.1.3	Evaluate a speakers point of view, reasoning, and use of evidence and rhetoric.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	2
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.K12.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	LA	Text Types and Purposes	Writing	9-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.910.RI.2.6	Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.	LA	Craft and Structure	Reading Standards for Informational Text	9-12	3
LAFS.910.SL.1.2	Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3
LAFS.910.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.910.W.1.1	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing	9-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.WHST.1.1	Write arguments focused on *discipline-specific content.* a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from or supports the argument presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	9-12	4
SC.912.CS-PC.3.1	Evaluate the quality of digital resources for reliability (i.e., currency, relevancy, authority, accuracy, and purpose of digital information).	SC	Evaluation of digital information resources	Computer Science – Communication Systems and Computing	9-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.CS-PC.2.3	Discuss and analyze the impact of values and points of view that are presented in media messages (e.g., racial, gender, and political).	SC	The impact of computing resources on local and global society	Computer Science – Communication Systems and Computing	9-12	-
SC.912.CS-PC.3.2	Evaluate the accuracy, relevance, comprehensiveness, appropriateness, and bias of electronic information resources.	SC	Evaluation of digital information resources	Computer Science – Communication Systems and Computing	9-12	-
LAFS.1112.RH.3.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.	LA	Integration of Knowledge and Ideas	Reading Standards for Literacy in History/Social Studies 6-12	9-12	3
LAFS.1112.RH.3.9	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.	LA	Integration of Knowledge and Ideas	Reading Standards for Literacy in History/Social Studies 6-12	9-12	3
LAFS.1112.RI.3.7	Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.	LA	Integration of Knowledge and Ideas	Reading Standards for Informational Text	9-12	3
LAFS.1112.RST.3.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	LA	Integration of Knowledge and Ideas	Reading Standards for Literacy in Science and Technical Subjects 6-12	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.2	Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3
LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3

Wild Bill's Fate

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Type and Purpose	Writing	9-12	4

Wild Bill's Fate

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.1112.WHST.1.1	Write arguments focused on *discipline-specific content.* a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from or supports the argument presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	9-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.11	Analyze public policy solutions or courses of action to resolve a local, state, or federal issue.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	3-12	-
SS.912.S.3.3	Examine and analyze various points of view relating to historical and current events.	SS	Social Status/Identify how social status influences individual and group behaviors and how that status relates to the position a person occupies within a social group.	Sociology	9-12	-

Wild Bill's Fate

Learning to Look, Learning to See

Attitudes and Awareness

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	The Practice of Science	Nature of Science	K-5	2
SC.K.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-5	2
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	The Practice of Science	Nature of Science	K-5	2
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	SC	Presentation of Knowledge and Ideas	Speaking and Listening	K-5	3
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	Practice of Science	Nature of Science	K-5	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and natural motion, and compare their observations with others.	SC	Practice of Science	Nature of Science	K-5	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	Practice of Science	Nature of Science	K-5	2
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	K-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	The Practice of Science	Nature of Science	K-5	3
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	The Practice of Science	Nature of Science	K-5	2

Animal Charades

Attitudes and Awareness

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K.L.3.5	With guidance and support from adults, explore word relationships and nuances in word meanings. a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). c. Identify real-life connections between words and their use (e.g., note places at school that are colorful). d. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk, march, strut, prance*) by acting out the meanings.	LA	Vocabulary Acquisition and Use	Language	K-5	3
LAFS.K12.L.3.5	Demonstrate understanding of word relationships and nuances in word meanings.	LA	Vocabulary Acquisition and Use	Language	K-5	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1.L.3.5	With guidance and support from adults, demonstrate understanding, word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes). c. Identify real-life connections between words and their use (e.g., note places at home that are cozy). d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	LA	Vocabulary Acquisition and Use	Language	K-5	2
LAFS.2.L.3.5	Demonstrate understanding of word relationships and nuances in word meanings. a. Identify real-life connections between words and their use (e.g., *describe foods that are spicy or juicy*). b. Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*).	LA	Vocabulary Acquisition and Use	Language	K-5	3
LAFS.3.L.3.5	Demonstrate understanding of word relationships and nuances in word meanings. a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*). b. Identify real-life connections between words and their use (e.g., *describe people who are friendly or helpful*). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).	LA	Vocabulary Acquisition and Use	Language	K-5	3

Animal Charades

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.35.CS-CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	K-5	-

Animal Poetry

Attitudes and Awareness

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	Text Types and Purposes	Writing	3-8	3
LAFS.3.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2
LAFS.4.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2
LAFS.5.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2
LAFS.6.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2
LAFS.7.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2
LAFS.8.RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.	LA	Range of Reading and Level of Text Complexity	Reading Standards for Literature	3-8	2

Nature in Art

Attitudes and Awareness

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	The Practice of Science	Nature of Science	3-8	2
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
SC.35.CS-CC.1.2	Describe key ideas and details while working individually or collaboratively using digital tools and media-rich resources in a way that informs, persuades, and/or entertains.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	3-8	-
LAFS.3.SL.2.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	SC	Heredity and Reproduction	Life Science	3-8	3
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.4.SL.2.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.5.SL.2.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	2
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	3-8	3
SS.8.A.1.7	View historic events through the eyes of those who were there as shown in their art, writings, music, and artifacts.	SS	Use research and inquiry skills to analyze American History using primary and secondary sources.	American History	3 -8	-

Wildlife and the Environment: Community Survey

Attitudes and Awareness

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.SL.1.3	Evaluate a speakers point of view, reasoning, and use of evidence and rhetoric.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.6.SL.1.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	6-12	3
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	6-12	-
SC.68.CS-PC.3.2	Analyze how media and technology can be used to distort, exaggerate, or misrepresent information.	SC	Evaluation of Digital Information Resources	Computer Science – Communication Systems and Computing	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	Programming Applications	Computer Science – Communication Systems and Computing	6-12	-
LAFS.68.RH.3.8	Distinguish among fact, opinion, and reasoned judgment in a text.	LA	Integration of Knowledge and Ideas	Reading Standards for Literacy in History/Social Studies 6-12	6-12	3
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
SS.7.C.2.11	Analyze media and political communications (bias, symbolism, propaganda).	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
LAFS.8.RI.3.9	Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.	LA	Integration of Knowledge and Ideas	Reading Standards for Informational Text	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.SL.1.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.910.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SC.912.CS-PC.2.3	Discuss and analyze the impact of values and points of view that are presented in media messages (e.g., racial, gender, and political).	SC	The impact of computing resources on local and global society	Computer Science – Communication Systems and Computing	6-12	-
MAFS.912.S-IC.2.4	Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.	MA	Make inferences and justify conclusions from sample surveys, experiments, and observational studies	Statistics & Probability: Making Inferences & Justifying Conclusions	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.912.S-ID.1.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	MA	Summarize, represent, and interpret data on a single count or measurement variable.	Statistics & Probability: Interpreting Categorical & Quantitative Data	6-12	2
MAFS.912.S-ID.1.4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.	MA	Summarize, represent, and interpret data on a single count or measurement variable.	Statistics & Probability: Interpreting Categorical & Quantitative Data	6-12	2
SS.912.P.9.2	Describe the relationship between attitudes (implicit and explicit) and behavior.	SS	Sociocultural Context Domain/Social Interactions	Psychology	6-12	-
SS.912.S.1.6	Distinguish fact from opinion in data sources to analyze various points of view about a social issue.	SS	Foundations of Sociology as a Social Science/Identify methods and strategies of research and examine the contributions of sociology to the understanding of social issues.	Sociology	9-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.S.3.3	Examine and analyze various points of view relating to historical and current events.	SS	Social Status/Identify how social status influences individual and group behaviors and how that status relates to the position a person occupies within a social group.	Sociology	6-12	-
SS.912.S.5.6	Identify the factors that influence change in social norms over time.	SS	Social Institutions/ Identify the effects of social institutions on individual and group behavior.	Sociology	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. e. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. f. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. g. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. h. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4

No Water Off a Duck's Back

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	2
MAFS.K12.MP.1.1	**Make sense of problems and persevere in solving them.** Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem.	MA	Make Sense of Problems and Persevere in Solving Them.	Mathematical Practice	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.K12. MP.1.1 continued	Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.					
MAFS.K12. MP.4.1	**Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematical Practice	6-8	3
LAFS.3.W.1 .2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. d. Provide a concluding statement or section.	LA	Text Types and Purposes	Writing	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.4.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	The Practice of Science	Nature of Science	3-8	2
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method."	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.5.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	The Practice of Science	Nature of Science	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
MAFS.6.EE.3.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*	MA	Represent and analyze quantitative relationships between dependent and independent variables.	Expressions and Equations	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.68.RST.1.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	Key Ideas and Details	Reading Standards for Literacy in Science and Technical Subjects 6-12	3-8	2
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	3-8	2
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2
MAFS.7.G.2.4	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	MA	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume	Geometry	3-8	2
MAFS.7.RP.1.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.*	MA	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Ratios and Proportional Relationships	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.7.RP.1.2	Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.* d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.	MA	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Ratios and Proportional Relationships	3-8	2
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	LA	Text Types and Purposes	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
MAFS.8.EE.2.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*	MA	Understand the connections between proportional relationships, lines, and linear equations	Expressions and Equations	3-8	2
MAFS.8.F.2.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	MA	Use functions to model relationships between quantities	Functions	3-8	3
SS.8.G.5.2	Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.	SS	Understand how human actions can impact the environment.	Geography	3-8	-

Smokey Bear Said What? Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
LAFS.5.W.3.9	Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 5 Reading standards to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). b. Apply grade 5 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]").	LA	Research to Build and Present Knowledge	Writing	3-8	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.3.9	Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 6 Reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). b. Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").	LA	Research to Build and Present Knowledge	Writing	3-8	3
LAFS.68.RST.3.9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	LA	Integration of Knowledge and Ideas	Reading Standards for Literacy in Science and Technical Subjects 6-12	6-12	3
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2

Smokey Bear Said What?

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.9	Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history"). b. Apply grade 7 Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").	LA	Research to Build and Present Knowledge	Writing	3-8	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

A Dire Diet

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-8	2
MAFS.6.RP.1.2	Understand the concept of a unit rate a/b associated with a ratio a:b with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*	MA	Understand ratio concepts and use ratio reasoning to solve problems	Ratio and Proportional Relationships	6-8	2
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-8	4
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-8	4
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	Interdependence	Life Science	6-8	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-8	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-8	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-8	4

A Dire Diet

Lights Out!

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.E.5.1	Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons.	SC	Earth in Space and Time	Earth and Space Science	3-12	3
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information	SS	The World in Spatial terms	Geography	3-12	-
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	3-12	-
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	Understand How Human Actions Can Impact the Environment	Geography	3-12	-
SC.912.L.17.15	Discuss the effects of technology on environmental quality.	SC	Interdependence	Life Science	3-12	2
SC.912.L.17.16	Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.	SC	Interdependence	Life Science	3-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.11	Analyze public policy solutions or courses of action to resolve a local, state, or federal issue.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	3-12	-
SS.912.G.5.3	Analyze case studies of the effects of human use of technology on the environment of places.	SS	Understand how human actions can impact the environment.	Geography	3-12	-
SS.912.G.5.6	Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.	SS	Understand how human actions can impact the environment	Geography	3-12	-
SS.912.G.6.5	Develop criteria for assessing issues relating to human spatial organization and environmental stability to identify solutions.	SS	Understand how to apply geography to interpret the past and present and plan for the future.	Geography	3-12	-
SS.912.P.5.3	Describe the circadian rhythm and its relation to sleep.	SS	Biopsychology Domain/ Consciousness	Psychology	3-12	-

Lights Out!

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.S.6.10	Propose a plan to improve a social structure, and design the means needed to implement the change.	SS	Social Change/Examine the changing nature of society.	Sociology	3-12	-

Lights Out!

Food Footprint

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	SC	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.K12.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	LA	Text Types and Purposes	Writing	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.1	Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s) and organize the reasons and evidence clearly. b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented	LA	Text Types and Purposes	Writing	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-8	4
SC.68.CS-CC.1.1	Demonstrate an ability to communicate appropriately through various online tools.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	6-12	-
SC.7.P.11.2	Investigate and describe the transformation of energy from one form to another.	SC	Energy Transfer and Transformations	Physical Science	6-12	2
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2

Food Footprint

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.1.1	Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Types and Purposes	Writing	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.1.1	Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Types and Purposes	Writing	6-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3
LAFS.910.SL.2.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Food Footprint

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.1.1	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. g. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. h. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. i. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. j. Use precise language and domain-specific vocabulary to manage the complexity of the topic. k. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. l. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing	6-12	4

Food Footprint

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.912.L.17.9	Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	SC	Interdependence	Life Science	6-12	3
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	Sc	Science and Society	Nature of Science	6-12	3
LAFS.1112.SL.2.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	2
LAFS.1112.SL.2 .4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	6-12	3

Food Footprint

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. f. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. h. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Type and Purpose	Writing	6-12	4

Food Footprint

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
SS.912.E.1.1	Identify the factors of production and why they are necessary for the production of goods and services.		Understand the fundamental concepts relevant to the development of a market economy	Economics	6-12	-

The Power of Planning

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.SL.1.3	Evaluate a speakers point of view, reasoning, and use of evidence and rhetoric.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.7.P.11.2	Investigate and describe the transformation of energy from one form to another.	SC	Energy Transfer and Transformations	Physical Science	6-12	2
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.8.FL.2.2	Analyze a source's incentives in providing information about a good or service, and how a consumer can better assess the quality and usefulness of the information.	SS	Buying Goods and Services	Financial Literacy	6-12	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	Understand how human actions can impact the environment	Geography	6-12	-
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.912.E.6.6	Analyze past, present, and potential future consequences to the environment resulting from various energy production technologies.	SC	Earth Structures	Earth and Space Science	6-12	3
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.19	Describe how different natural resources are produced and how their rates of use and renewal limit availability.	SC	Interdependence	Life Science	6-12	2
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	SC	Science and Society	Nature of Science	6-12	3
SC.912.P.10.11	Explain and compare nuclear reactions (radioactive decay, fission and fusion), the energy changes associated with them and their associated safety issues.	SC	Energy	Physical Science	6-12	3
SC.912.P.10.12	Differentiate between chemical and nuclear reactions.	SC	Energy	Physical Science	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2

To Zone or Not to Zone

Human Impacts

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.K12.SL.1.3	Evaluate a speakers point of view, reasoning, and use of evidence and rhetoric.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.6.SL.1.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.7.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
SS.7.C.2.4	Evaluate rights contained in the Bill of Rights and other amendments to the Constitution.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-

To Zone or Not to Zone

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.7.C.2.5	Distinguish how the Constitution safeguards and limits individual rights.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
SS.7.C.3.6	Evaluate Constitutional rights and their impact on individuals and society.	SS	Demonstrate an understanding of the principles, functions, and organization of government	Civics and Government	6-12	-
SS.7.G.6.1	Use Geographic Information Systems (GIS) or other technology to view maps of current information about the United Sta	Ss	Understand how to apply geography to interpret the past ad present and plan for the future	Geography	6-12	-

To Zone or Not to Zone

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.8.SL.1.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.910.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
SS.912.C.2.6	Evaluate, take, and defend positions about rights protected by the Constitution and Bill of Rights.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.7	Explain why rights have limits and are not absolute.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
SS.912.C.2.8	Analyze the impact of citizen participation as a means of achieving political and social change.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.3.1	Examine the constitutional principles of representative government, limited government, consent of the governed, rule of law, and individual rights.	SS	Demonstrate an understanding of the principles, functions, and organization of government	Civics and Government	6-12	-
SS.912.S.3.3	Examine and analyze various points of view relating to historical and current events.	SS	Social Status/Identify how social status influences individual and group behaviors and how that status relates to the position a person occupies within a social group.	Sociology	6-12	-
SS.912.C.3.11	Contrast how the Constitution safeguards and limits individual rights.	SS	Demonstrate an understanding of the principles, functions, and organization of government	Civics and Government	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3
LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	LA	Comprehension and Collaboration	Speaking and Listening	6-12	3

Changing the Land

Issues and Trends

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.2	Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.	LA	Comprehension and Collaboration	Speaking and Listening	6-8	3
SC.68.CS-CS.1.2	Create or modify and use a simulation to analyze and illustrate a concept in depth (i.e., use a simulation to illustrate a genetic variation), individually and collaboratively.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	__
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	Earth Structures	Earth and Space Science	6-8	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.8.A.1.2	Analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.	SS	Use research and inquiry skills to analyze American History using primary and secondary sources	American History	6-8	-

World Travelers

Issues and Trends

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	The Practice of Science	Nature of Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	6-12	3

World Travelers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	Programming Applications	Computer Science – Communication Systems and Computing	6-12	-
SC.68.CS-CS.2.1	Create, modify, and use a database (e.g., define field formats, adding new records, manipulate data) to analyze data and propose solutions for a task/problem, individually and collaboratively.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	6-12	-
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	6-12	-
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	6-12	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
MAFS.7.SP.1.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	MA	Use random sampling to draw inferences about a population.	Statistics and Probability	6-12	2
MAFS.7.SP.1.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*	MA	Use random sampling to draw inferences about a population	Statistics and Probability	6-12	3
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	Understand How Human Actions Can Impact the Environment	Geography	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	The Practice of Science	Nature of Science	6-12	3
SC.8.N.1.3	Use phrases such as "results support" or "fail to support" in science, understanding that science does not offer conclusive 'proof' of a knowledge claim.	SC	The Practice of Science	Nature of Science	6-12	2
SC.8.N.1.4	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	6-12	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	6-12	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.8.A.1.2	Analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.	SS	Use research and inquiry skills to analyze American History using primary and secondary sources	American History	6-12	-
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	6-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	6-12	2
SC.912.N.1.7	Recognize the role of creativity in constructing scientific questions, methods and explanations.	SC	The Practice of Science	Nature of Science	6-12	1
MAFS.912.S-IC.1.1	Understand statistics as a process for making inferences about population parameters based on a random sample from that population.	SC	Understand and evaluate random processes underlying statistical experiments	Statistics & Probability: Making Inferences & Justifying Conclusions	3-12	1
SS.912.P.2.12	Explain how validity and reliability of observations and measurements relate to data analysis.	SS	Scientific Inquiry Domain/ Research Methods, Measurement, and Statistics	Psychology	9-12	-
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4

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Issues and Trends

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.R.1.1	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	LA	Key Ideas and Details	Reading	9-12	2
LAFS.K12.R.4.10	Read and comprehend complex literary and informational texts independently and proficiently.	LA	Range of Reading and Level of Text	Reading	9-12	2
LAFS.910.RST.1.2	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	LA	Key Ideas and Details	Reading Standards for Literacy in Science and Technical Subjects	9-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.1.1	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. m. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. n. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. o. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. p. Use precise language and domain-specific vocabulary to manage the complexity of the topic. q. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. r. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing	9-12	4

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.1.1	Write arguments focused on *discipline-specific content.* f. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. h. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from or supports the argument presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	9-12	4
SC.912.CS-CC.1.5	Communicate and publish key ideas and details to a variety of audiences using digital tools and media-rich resources.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	9-12	-
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	9-12	3

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.4	Evaluate, take, and defend positions on issues that cause the government to balance the interests of individuals with the public good.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	9-12	-
SS.912.C.2.8	Analyze the impact of citizen participation as a means of achieving political and social change.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	9-12	-
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	SC	Science and Society	Nature of Science	9-12	3

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.C.2.11	Analyze public policy solutions or courses of action to resolve a local, state, or federal issue.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	9-12	-
SS.912.G.5.6	Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.	SS	Understand how human actions can impact the environment	Geography	9-12	-
SS.912.S.8.2	Describe how collective behavior (working in groups) can influence and change society. Use historical and contemporary examples to define collective behavior.	SS	Individual and Community/Examine the role of the individual as a member of the community; explore both individual and collective behavior	Sociology	9-12	-

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.S.1.6	Distinguish fact from opinion in data sources to analyze various points of view about a social issue.	SS	Foundations of Sociology as a Social Science/Identify methods and strategies of research and examine the contributions of sociology to the understanding of social issues.	Sociology	9-12	-
LAFS.1112.RH.1.2	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.	LA	Key Ideas and Details	Reading Standards for Literacy in History and Social Studies	9-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.W.1.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. f. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. h. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from and supports the argument presented.	LA	Text Type and Purpose	Writing	9-12	4

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.1.1	Write arguments focused on *discipline-specific content.* f. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. h. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from or supports the argument presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	9-12	4

Turkey Tallies

Issues and Trends

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
MAFS.K12.MP.5.1	Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.	MA	Use Appropriate Tools Strategically	Mathematical Practice	9-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	9-12	-
SC.912.CS-CS.1.3	Explain how data analysis is used to enhance the understanding of complex natural and human systems.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	9-12	-
SC.912.CS-CS.1.5	Represent and understand natural phenomena using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	9-12	-
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	9-12	3

Turkey Tallies

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	SC	Interdependence	Life Science	9-12	3
MAFS.912.A-CED.1.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.	MA	Create equations that describe numbers or relationships.	Algebra: Creating Equations	9-12	2
MAFS.912.F-LE.1.1	Distinguish between situations that can be modeled with linear functions and with exponential functions. a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	MA	Construct and compare linear, quadratic, and exponential models and solve problems.	Functions: Linear, Quadratic, & Exponential Models	9-12	2
MAFS.912.F-LE.1.3	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	MA	Construct and compare linear, quadratic, and exponential models and solve problems.	Functions: Linear, Quadratic, & Exponential Models	9-12	2
MAFS.912.F-LE.2.5	Interpret the parameters in a linear or exponential function in terms of a context.	MA	Interpret expressions for functions in terms of the situation the model.	Functions: Linear, Quadratic, & Exponential Models	9-12	2

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.912.S-IC.2.6	Evaluate reports based on data.	MA	Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Statistics & Probability: Making Inferences & Justifying Conclusions	9-12	2
SS.912.P.2.10	Interpret graphical representations of data as used in both quantitative and qualitative methods.	SS	Scientific Inquiry Domain/Research Methods, Measurement, and Statistics	Psychology	9-12	-
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4

Turkey Tallies

Career Critters

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.35.CS-CS.1.2	Describe how models and simulations can be used to solve real-world issues in science and engineering.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.35.CS-CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	3-8	-
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.3.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 *topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-5	4
SC.35.CS-CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	Interdependence	Life Science	3-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2
LAFS.4.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade *4 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	4
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method."	SC	The Practice of Science	Nature of Science	3-8	2

Career Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.5.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-8	2
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	3-8	2

Career Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-8	4
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-

Career Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	3-8	-
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	Interdependence	Life Science	3-8	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	3-8	3
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	The Practice of Science	Nature of Science	3-8	2

Career Critters

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-8	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.	LA	Comprehension and Collaboration	Speaking and Listening	3-8	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	3-8	4

Checks and Balances

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.K12.MP.4.1	**Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematical Practice	6-8	3
MAFS.6.SP.1.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*	MA	Develop Understanding of Statistical Variability1	Statistics and Probability	6-8	1

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.68.CS-CS.1.2	Create or modify and use a simulation to analyze and illustrate a concept in depth (i.e., use a simulation to illustrate a genetic variation), individually and collaboratively.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	Problem Solving and Algorithms	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CP.1.1	Define parameters for individual and collaborative projects using Boolean logic (e.g., using not, or, and).	SC	Data Analysis	Computer Science – Communication Systems and Computing	608	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	Earth Structures	Earth and Space Science	6-8	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-8	3

Checks and Balances

Migration Barriers

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	Interdependence	Life Science	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	Evaluate the roles, rights, and responsibilities of United States citizens, and determine methods of active participation in society, government, and the political system.	Civics and Government	6-12	-
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	Science and Society	Nature of Science	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.8.N.4.2	Explain how political, social, and economic concerns can affect science, and vice versa.	SC	Science and Society	Nature of Science	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	SC	Interdependence	Life Science	6-12	3
SC.912.L.17.18	Describe how human population size and resource use relate to environmental quality	SC	Interdependence	Life Science	6-12	2
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	SC	Science and Society	Nature of Science	6-12	2
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	SC	Science and Society	Nature of Science	6-12	3

Migration Barriers

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.E.2.2	Use a decision-making model to analyze a public policy issue affecting the student's community that incorporates defining a problem, analyzing the potential consequences, and considering the alternatives.	SS	Understand the fundamental concepts relevant to the institutions, structure, and functions of a national economy.	Economics	6-12	-
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2
SS.912.G.5.4	Analyze case studies of how humans impact the diversity and productivity of ecosystems.	SS	Understand how human actions can impact the environment.	Geography	6-12	-
SS.912.G.6.5	Develop criteria for assessing issues relating to human spatial organization and environmental stability to identify solutions.	SS	Understand how to apply geography to interpret the past and present and plan for the future.	Geography	6-12	-
SS.912.P.12.2	Define processes involved in problem solving and decision making.	SS	Cognitive Domain/Thinking	Psychology	6-12	-
SS.912.P.12.4	Describe obstacles to problem solving.	SS	Cognitive Domain/Thinking	Psychology	6-12	-

Migration Barriers

Bird Song Survey

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4
MAFS.K12.MP.4.1	**Model with mathematics.** Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	Model with Mathematics	Mathematical Practice	6-12	3
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.68.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style and objective tone. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	3
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: e. Reporting the number of observations. f. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. g. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. h. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	MA	Summarize and Describe Distributions	Statistics and Probability	6-12	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	6-12	2
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4

Bird Song Survey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	Understand How Human Actions Can Impact the Environment	Geography	6-12	-
SC.8.N.1.2	Design and conduct a study using repeated trials and replication.	SC	The Practice of Science	Nature of Science	6-12	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	The Practice of Science	Nature of Science	6-12	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	Research to Build Knowledge	Writing	6-12	4
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	4

Bird Song Survey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	4

Bird Song Survey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SC.912.CS-CS.1.1	Analyze data and identify real-world patterns through modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-12	-
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	6-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	6-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	6-12	2

Bird Song Survey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	LA	Text Types and Purposes	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-12	4

Bird Song Survey

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	6-12	4
SS.912.P.2.10	Interpret graphical representations of data as used in both quantitative and qualitative methods.	SS	Scientific Inquiry Domain/Research Methods, Measurement, and Statistics	Psychology	6-12	-

A Picture is Worth a Thousand Words

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.L.3.6	Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2
LAFS.6.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1
LAFS.7.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	Science and Society	Nature of Science	6-12	2
LAFS.8.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	1
SC.912.L.17.15	Discuss the effects of technology on environmental quality.	SC	Interdependence	Life Science	6-12	2

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	SC	Science and Society	Nature of Science	6-12	2
SS.912.G.5.3	Analyze case studies of the effects of human use of technology on the environment of places.	SS	Understand how human actions can impact the environment.	Geography	6-12	-
SS.912.G.5.5	Use geographic terms and tools to analyze case studies of policies and programs for resource use and management.	SS	Understand how human actions can impact the environment.	Geography	6-12	-
SS.912.P.9.2	Describe the relationship between attitudes (implicit and explicit) and behavior.	SS	Sociocultural Context Domain/Social Interactions	Psychology	6-12	-
SS.912.P.10.2	Identify how cultures change over time and vary within nations and internationally.	SS	Sociocultural Context Domain/Sociocultural Diversity	Psychology	6-12	-
SS.912.S.1.4	Examine changing points of view of social issues, such as poverty, crime and discrimination.	SS	Foundations of Sociology as a Social Science/Identify methods and strategies of research and examine the contributions of sociology to the understanding of social issues.	Psychology	6-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.S.5.6	Identify the factors that influence change in social norms over time.	SS	Social Institutions/ Identify the effects of social institutions on individual and group behavior	Psychology	6-12	-
LAFS.910.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2
LAFS.1112.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	LA	Vocabulary Acquisition and Use	Language	6-12	2

A Picture is Worth a Thousand Words

Dropping in on Deer

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.RST.1.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	LA	Key Ideas and Details	Reading Standards for Literacy in Science and Technical Subjects 6-12	9-12	2
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	SC	Interdependence	Life Science	9-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	9-12	3
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	SC	Science and Society	Nature of Science	9-12	2
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	SC	The Practice of Science	Nature of Science	9-12	2
LAFS.1112.RST.1.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.	LA	Key Ideas and Details	Reading Standards for Literacy in Science and Technical Subjects 6-12	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
MAFS.912.S-IC.2.4	Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.	MA	Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Statistics & Probability: Making Inferences & Justifying Conclusions	9-12	2

Dropping in on Deer

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
MAFS.912.S-IC.2.6	Evaluate reports based on data.	MA	Make inferences and justify conclusions from sample surveys, experiments, and observational studies.	Statistics & Probability: Making Inferences & Justifying Conclusions	9-12	2
SS.912.P.2.12	Explain how validity and reliability of observations and measurements relate to data analysis.	SS	Scientific Inquiry Domain/Research Methods, Measurement, and Statistics	Psychology	9-12	-

Dropping in on Deer

Deer Dilemma

Wildlife Management

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	2
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.K12.W.1.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	Text Types and Purposes	Writing	9-12	2
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.910.L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use parallel structure. b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.	LA	Conventions of Standard English	Language	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.910.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3
LAFS.910.SL.2.4	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.SL.2.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	4
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4
LAFS.910.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	Writing	9-12	4

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3
LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	LA	Comprehension and Collaboration	Speaking and Listening	9-12	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	LA	Presentation of Knowledge and Ideas	Speaking and Listening	9-12	3
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	9-12	2
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	SC	Interdependence	Life Science	9-12	3
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	SC	Interdependence	Life Science	9-12	3
SC.912.L.17.13	Discuss the need for adequate monitoring of environmental parameters when making policy decisions.	SC	Interdependence	Life Science	9-12	3
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	SC	Interdependence	Life Science	9-12	3
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	SC	Science and Society	Nature of Sciencer	9-12	2

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	SC	Science and Society	Nature of Science	9-12	3
SS.912.C.2.2	Evaluate the importance of political participation and civic participation.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system	Civics and Government	9-12	-
SS.912.C.2.4	Evaluate, take, and defend positions on issues that cause the government to balance the interests of individuals with the public good.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	9-12	-

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Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.912.E.2.2	Use a decision-making model to analyze a public policy issue affecting the student's community that incorporates defining a problem, analyzing the potential consequences, and considering the alternatives.	SS	Understand the fundamental concepts relevant to the institutions, structure, and functions of a national economy.	Economics	9-12	-
SS.912.P.12.2	Define processes involved in problem solving and decision making.	SS	Cognitive Domain/Thinking	Psychology	9-12	-
SS.912.P.12.5	Describe obstacles to problem solving.	SS	Cognitive Domain/Thinking	Psychology	9-12	-
SS.912.S.2.11	Demonstrate democratic approaches to managing disagreements and resolving conflicts within a culture.	SS	Culture/Examine the influence on the individual and the way cultural transmission is accomplished	Sociology	9-12	-
SS.912.S.5.11	Demonstrate democratic approaches to managing disagreements and solving conflicts within a social institution.	SS	Social Institutions/Identify the effects of social institutions on individual and group behavior.	Sociology	9-12	-

Deer Dilemma

Sustainability: Then, Now, Later

Responsible Action and Service

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	LA	Conventions of Standard English	Language	6-8	2
LAFS.K12.L.1.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	LA	Conventions of Standard English	Language	6-8	2
LAFS.K12.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	Text Types and Purposes	Writing	6-8	3
LAFS.K12.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing	6-8	3
SC.68.CS-CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-
SC.68.CS-CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	Modeling and Simulations	Computer Science – Communication Systems and Computing	6-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	6-8	3
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	Production and Distribution of Writing	Writing	6-8	2
LAFS.68.WHST.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
SS.6.W.1.6	Describe how history transmits culture and heritage and provides models of human character.	SS	Utilize historical inquiry skills and analytical processes	History	6-8	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	Earth Structures	Earth and Space Science	6-8	2
LAFS.7.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	6-8	3

Sustainability: Then, Now, Later

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-8	3
LAFS.8.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	LA	Text Types and Purposes	Writing	6-8	3

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.8.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	Production and Distribution of Writing	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects	6-8	3
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	Understand the relationships between Earth's ecosystems and the populations that dwell within them.	Geography	6-8	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	Understand how human actions can impact the environment	Geography	6-8	-
SS.8.G.5.2	Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.	SS	Understand how human actions can impact the environment.	Geography	6-8	-

Habitat Heroes

Responsible Action and Service

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.K12.W.3.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SC.35.CS-PC.3.1	Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).	SC	Evaluation of Digital Information Resources	Computer Science – Personal, Community, Global and Ethical Impact	3-12	-
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SS.4.C.2.3	Explain the importance of public service, voting, and volunteerism.	SS	Civic and Political Participation	Civics and Government	3-12	-
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	Research to Build and Present Knowledge	Writing	3-12	2
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information	SS	The World in Spatial terms	Geography	3-8	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	Research to Build Knowledge	Writing	3-12	4
SC.68.CS-CC.1.1	Demonstrate an ability to communicate appropriately through various online tools.	SC	Communication and Collaboration	Computer Science – Communication and Collaboration	3-12	-
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-12	2
SC.68.CS-CP.3.2	Create online content (e.g., webpage, blog, digital portfolio, multimedia), using advanced design tools.	SC	Programming Applications	Computer Science – Communication Systems and Computing	3-12	-
SS.7.C.2.14	Conduct a service project to further the public good.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	3-12	-

Benchmark	Description	Subject	Idea/Cluster/ Standard	Body Of Knowledge/ Strand/ Domain	Target Grades	Level of Complexity
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	Research to Build Knowledge	Writing	3-12	2
LAFS.910.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	4
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	SC	Interdependence	Life Science	3-12	3
SS.912.C.2.5	Conduct a service project to further the public good.	SS	Evaluate the roles, rights, and responsibilities of United States citizens and determine methods of active participation in society, government, and the political system.	Civics and Government	3-12	-
LAFS.1112.W.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	LA	Research to Build and Present Knowledge	Writing	3-12	2