

Project WILD Standards-Based FCAT-Style Activities



Marsh Munchers

Teacher Page

Students practice FCAT skills while learning about aquatic food webs.

GRADE LEVEL: 4th and 5th grades

ACADEMIC OUTCOMES/LESSON OBJECTIVES:

- Students will read a selection introducing them to the concept of aquatic food webs.
- Students will respond to FCAT-Style questions and prompts in Reading, Writing, Math, and Science.

SUNSHINE STATE STANDARDS ASSESSED:

- LA.4.2.2.2 Reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.
- LA.5.2.2.2 Reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.
- LA.4.4.2.3 Creates expository responses in which ideas and details follow an organizational pattern and are relevant to the purpose.
- LA.5.4.2.3 Creates expository responses in which ideas and details follow an organizational pattern and are relevant to the purpose.
- MA.A.3.2.3 Adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.
- MA.E.3.2.2 Uses statistical data about life situations to make predictions and justify reasoning.
- SC.G.1.2.5 Knows that animals eat plants or other animals to acquire the energy they need for survival.

RESOURCES:

Project WILD/K-12 Programs website - <http://myfwc.com/educator/K12.html>
Florida Department of Education Website - <http://www.firn.edu/doe/>

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ANSWER KEY:

1. LA.4.4.2.3; LA.5.4.2.3 Use the 6-point writing rubric.
2. b) MA.E.3.2.2; MA.A.3.2.3
3. c) SC.G.1.2.5
4. c) LA.4.2.2.2; LA.5.2.2.2



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Student Handout

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WRITING

1. Detritus, or decaying plant and animal material, provides food for many of the fish, crabs, and snails that live in the saltmarsh. Think about how saltmarsh animals might be affected if the amount of detritus suddenly increased or decreased. Write to explain the possible results of an increase or decrease in this important food source.

NOTE: Write your response to question 1 on another sheet.

MATH

2. A researcher at the Sunshine State Saltmarsh observed a mixed flock of water birds, including Wood Storks, Great Egrets, and Green Herons. While she saw different numbers of birds on different days, she began to notice a pattern. For every 1 Wood Stork she observed, she also saw 1 Green Heron, and 4 Great Egrets. On Tuesday, she observed 18 total birds. Which of the following describes the number of each bird species she observed?
 - a. 2 Wood Storks, 2 Green Herons, and 14 Great Egrets
 - b. 3 Wood Storks, 3 Green Herons, and 12 Great Egrets
 - c. 4 Wood Storks, 4 Green Herons, and 10 Great Egrets
 - d. 5 Wood Storks, 5 Green Herons, and 8 Great Egrets

Name:

Date:



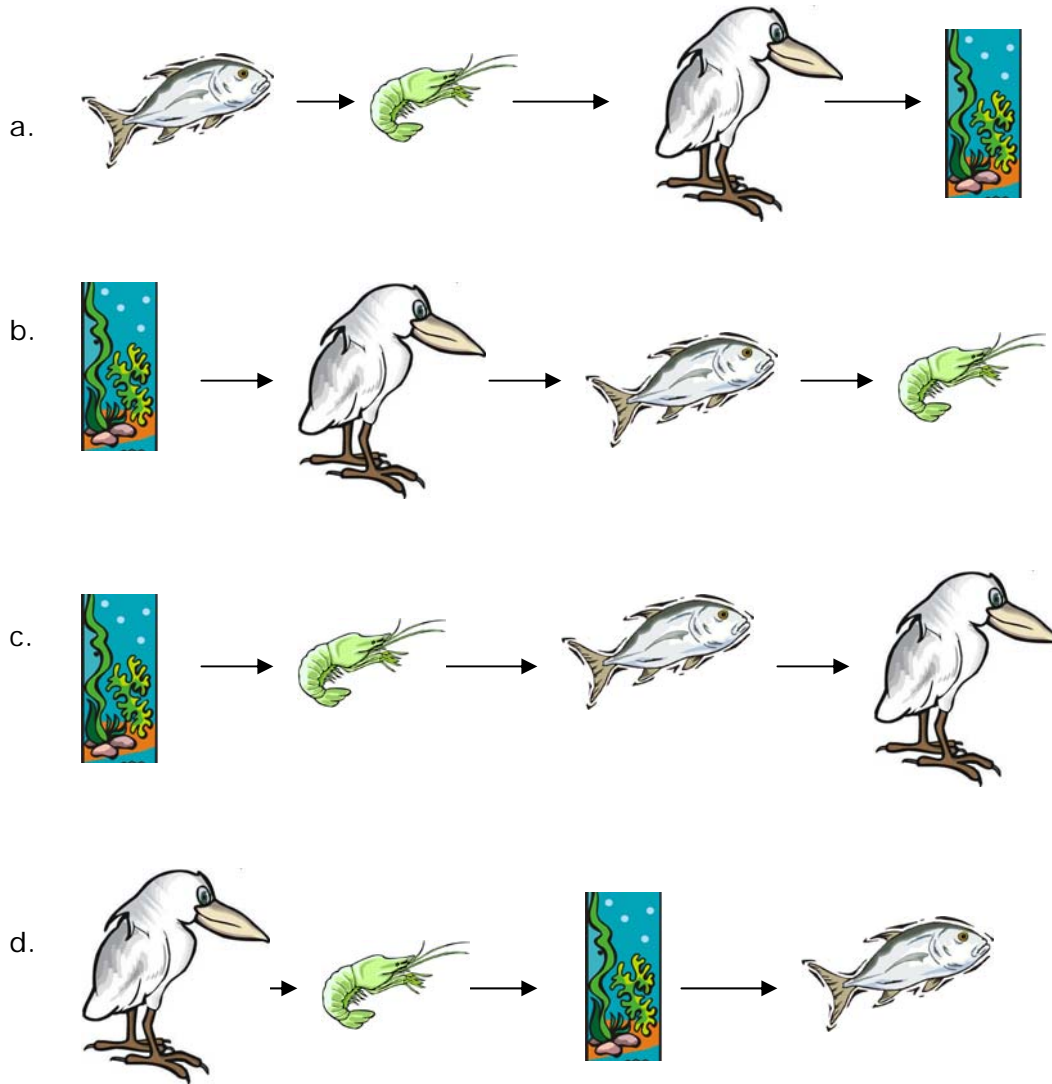
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SCIENCE

3. Which of the following food chains describes the transfer of energy in a wetland environment?



Name:

Date:



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READING

This article is adapted from the Background Information for the Project WILD activity "Marsh Munchers":

The Saltmarsh Ecosystem

A salt marsh is an important ecosystem located between the land and the ocean. It is a place where fresh water and salt water come together to form a unique habitat for wildlife. Animals and plants that live in a saltmarsh must be able to adapt to the constantly changing mixture of both fresh and salt water.

Saltmarshes are one of the most productive ecosystems on earth. They create up to two times as much food as the most fertile agricultural lands. The main producer in this ecosystem is saltmarsh grass. It grows well in the nutrient-rich waters where salt water from the ocean mixes with freshwater that runs off the land. A saltmarsh is always producing new grass as the old grass dies. Bacteria causes the decay of dead marsh grasses and the bodies of tiny dead marsh animals. Once these plants and animals are fully decayed, they are called "detritus." Many saltmarsh animals feed on this decomposed marsh grass, including fiddler crabs, snails, small shrimp, and minnows. Oysters and clams also filter detritus and tiny living plants from the water. These oysters and clams are eaten by crabs, birds, fish, and humans. Many ocean organisms also depend on the saltmarsh, including a variety of tasty fish, like flounder, red drum, and striped bass. Protecting our saltmarsh ecosystems is an important part of making sure our own food sources never disappear.

4. Based on the article titled, "The Saltmarsh Environment," what is the role of detritus in a saltmarsh environment?
- Detritus causes dead plants and animals to decay.
 - Detritus filters poisons and waste materials out of the water.
 - Detritus provides a food source for many saltmarsh species.
 - Detritus produces more energy than fertile agricultural lands.

Name:

Date: