Project Learning Tree Standards-Based FCAT-Style Activities

Nothing Succeeds Like Succession

Teacher Page

Students practice FCAT skills while learning about habitat succession.

GRADE LEVEL: 4th and 5th grades

ACADEMIC OUTCOMES/LESSON OBJECTIVES:
- Students will study diagrams introducing them to the concept of plant succession.
- Students will respond to FCAT-Style questions and prompts in Reading, Writing, Math, and Science.

SUNSHINE STATE STANDARDS ASSESSED:
- (LA.4.2.2.2, LA.5.2.2.2) uses information from the text to answer questions related to explicitly stated main ideas or relevant details.
- (LA.4.4.1.1) writes narratives based on real or imagined ideas, events, or observations that include characters, setting, plot, sensory details, a logical sequence of events, and a context to enable the reader to imagine the world of the event or experience. (LA.5.4.1.1) writes narratives that establish a situation and plot with rising action, conflict, and resolution.
- (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.
- (SC.G.2.2.2) knows that the size of a population is dependent upon the available resources within its community.

RESOURCES:
Florida Project Learning Tree Web site - http://www.sfrc.ufl.edu/plt/
Florida Department of Education Web site - http://www.firn.edu/doe/

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ANSWER KEY:
1. LA.4.4.1.1, LA.5.4.1.1 Use the 6-point Writing Rubric.
2. b) MA.A.3.2.3
3. c) SC.G.2.2.2
4. Use the 4-point rubric for Extended Response Reading Questions.
   LA.4.1.7.1, LA.5.1.7.1, Example of a Top-Score Response:
   One difference observed in the Field Area at the end of the month is the disappearance of bare ground. On Day 1, a small amount of the Field Area was bare, but on Day 30, all of the ground was covered with grass or weeds. Another difference observed is the presence of weeds. On Day 1, there were no weeds in the Field Area. On Day 30, almost half of the field was covered with weeds.

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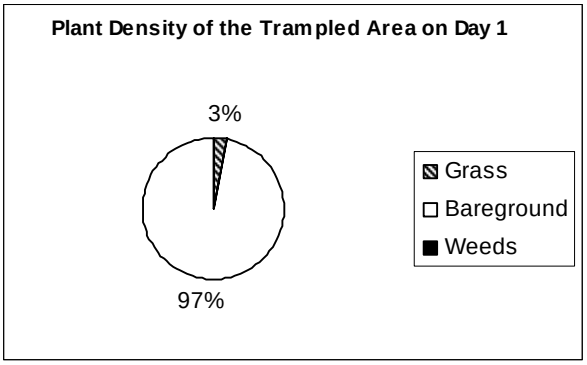
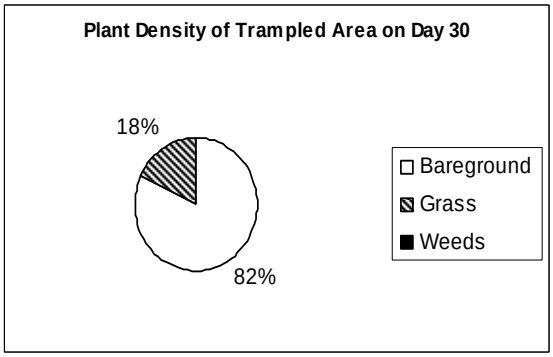
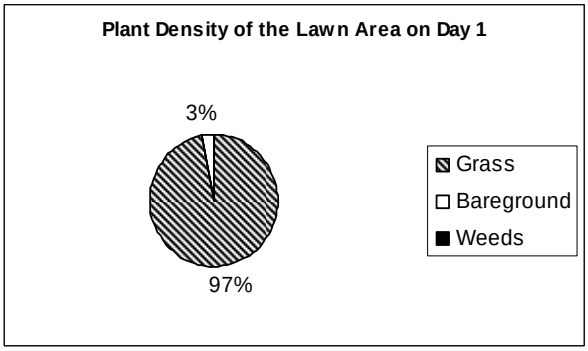
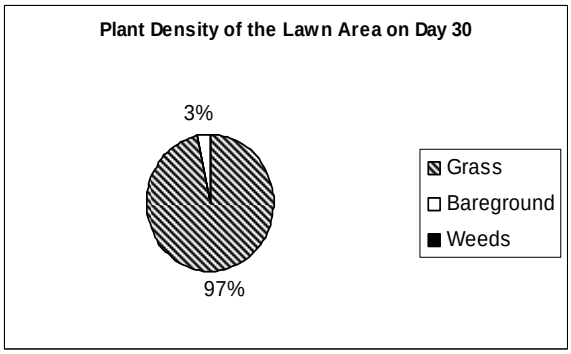
Use the following information to answer questions 2, 3, and 4. Mr. Rodriguez's class surveyed three habitats at their schoolyard: a trampled area, a lawn area, and a wild field area. For each habitat, they recorded how much of the area was grass, how much was bare ground, and how much was filled with weeds. They repeated their survey at the end of the month and recorded their data in the pie charts below.

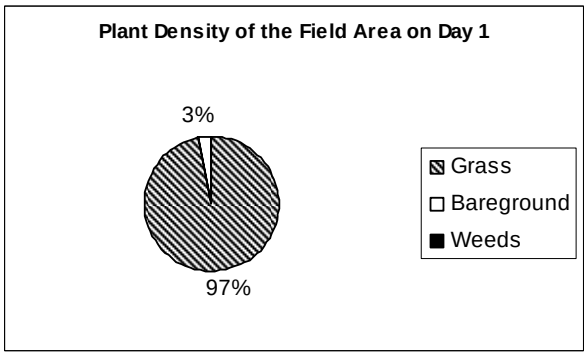
Survey of Schoolyard Habitats

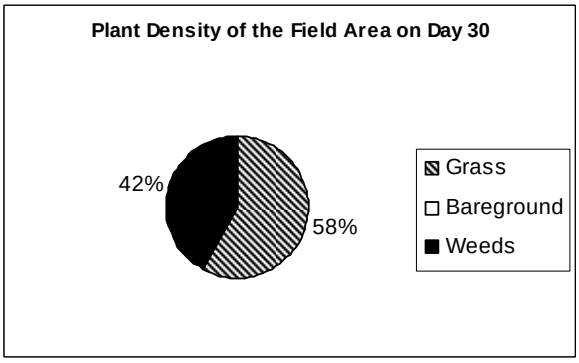












Name: **Date:**

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WRITING

1. Difficulties (like droughts and forest fires) and benefits (like plenty of rain and sunshine) can change an ecosystem over time. Think about an environmental or manmade event that might affect a forest ecosystem. Write a story about a tree that has survived through a variety of ecosystem changes.
   NOTE: Write your response to question 1 on another sheet.

MATH

2. Refer to the six plant density tables, labeled "Survey of Schoolyard Habitats," to answer the following question. At the end of the survey, what was the difference in the amount of grassy areas in the Field Habitat?

   a. 16% less grass
   b. 39% less grass
   c. 55% more grass
   d. 94% more grass

SCIENCE

3. Refer to the six plant density tables, labeled "Survey of Schoolyard Habitats," to answer the following question.

   In the Trampled Area, grass was able to increase its density by 15%. However, in the Lawn Area, weeds were not able to increase their density at all. Which of the following variables provides an explanation for this difference?

   a. Each of these schoolyard habitats received the same amount of rain.
   b. The Trampled Area was sprayed with weed killer, but the Grassy Area was not.
   c. The grass growing in the Grassy Area at the start of the experiment was already using all of the available water, space, and nutrient resources.
   d. Because each of the study areas was in direct sunlight, equivalent amounts of solar energy reached them during the study period.

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READING

4. Based on the six plant density tables, labeled "Survey of Schoolyard Habitats," describe the differences observed in the Field Area during the time of the study. Use details and information from the tables to support your answer.

READ
THINK
EXPLAIN

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