

Project Learning Tree Standards-Based FCAT-Style Activities



Trees in Trouble

Teacher Page

Students practice FCAT skills while learning to recognize the symptoms of unhealthy trees.

GRADE LEVEL: 4th and 5th grades

ACADEMIC OUTCOMES/LESSON OBJECTIVES:

- Students will study a table introducing them to the concept of plants and space.
- Students will respond to FCAT-Style questions and prompts in Reading, Writing, Math, and Science.

SUNSHINE STATE STANDARDS ASSESSED:

- (LA.4.4.2.3) writes informational/expository essays that contain introductory, body, and concluding paragraphs. (LA.5.4.2.3) writes informational/expository essays that state a thesis with a narrow focus, contain introductory, body, and concluding paragraphs.
- (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.1.2.3) knows that the sun is a star and that its energy can be captured or concentrated to generate heat knows that green plants use carbon dioxide, water, and sunlight energy to turn minerals and nutrients into food for growth, maintenance, and reproduction.
- (LA.4.1.6.3) selects from a variety of simple strategies, including the use of phonics, word structure, context clues, self-questioning, confirming simple predictions, retelling, and using visual cues, to identify words and construct meaning from various texts, illustrations, graphics, and charts. (LA.5.1.6.3) uses context clues to determine the meanings of unfamiliar words.

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.4.4.2.3, LA.5.4.2.3 Use the 6-point Writing Rubric.
2. a) LA.4.1.6.3, LA.5.1.6.3
3. d) MA.A.3.2.3
4. SC.F.1.2.6, Use a 2-point Science Short Response Rubric.

Example of a Top-Score Response

Group A plants, which don't get enough sunlight, won't have enough energy to grow and may be shorter than plants growing in direct sunlight. Group B, which doesn't get much water, will have wilted leaves and may dry up and die. Group C, which doesn't have enough minerals, may have yellow leaves and look sickly. Group D, which got enough sunlight, water, and minerals, should be the tallest and greenest.

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Trees in Trouble

Student Handout

Students practice FCAT skills while learning to recognize the symptoms of unhealthy trees.

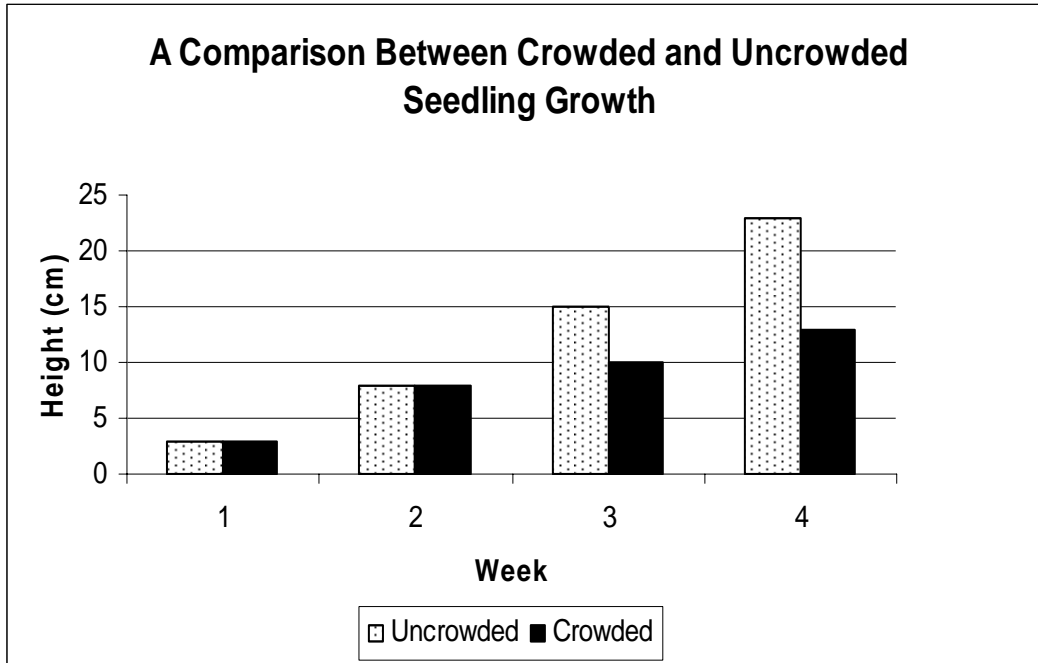
WRITING

1. Seeds need space if they are to find the sunlight, water, and mineral resources they need to grow. Think about the many reasons that humans (like you) need space in order to develop into healthy adults. Write to explain three reasons that you need space to function effectively in your daily life.

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

Science Experiment: Seed Growth and Crowding

Ms. Jameson's class planned an experiment to see how seedling growth was affected by crowded conditions. They planted seeds in two plots - one with the seeds spaced far apart, and one with the seeds crowded together. Each week, they measured the height of their seedlings and recorded the data in the table below.



Name:

Date:



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READING

2. Use the information in the passage, titled "Seed Growth and Crowding," to answer the following question. Based on context clues in the passage, which of the following best defines the word "plot"?
- the area in which the seeds were planted
 - the method used when the seeds were planted
 - the fertilizer type used when the seeds were planted
 - the time period in which the seeds were planted

MATH

3. Refer to the table titled, "A Comparison Between Crowded and Uncrowded Seedling Growth" to answer the following question. During Week 4, the uncrowded seedlings grew 8 cm. What percentage of the **uncrowded** seedlings' **total** growth occurred during Week 4?
- 2.9%
 - 3.5%
 - 29%
 - 35%

~continued on the next page~

Name:

Date:

