

Case Details

Case Title:

Mixed up Seeds

Author(s):

Caitlin Lyman, Emory University

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Grade Level(s):

Middle School

Subject(s):

Life Science

Summary:

LeTiffany has to spend part of her spring break helping her mom with the gardening. To make things worse, she knocks the seeds all over the floor and mixes them all together. Can LeTiffany sort out the different types of seeds before her mom finds out and grounds her for all of spring break?

Suggested Citation:

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http://www.cse.emory.edu/cases/casedisplay.cfm?case_id=1850

Learning Objectives:

1. Classify plants according to appearance, using appropriate taxonomy.
2. Describe plant anatomy and recognize parts of the plant.
3. Practice making observations and conclusions, and differentiating between the two.
4. Differentiate between monocot and dicot.
5. Differentiate between angiosperm and gymnosperm.
6. Differentiate between taproot and fibrous root.
7. Hypothesize factors that enable and inhibit plant growth.

National/State Standards:

Georgia Performance Standards

S7CS1. Students will explore of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. (NSES Content Standard A) a. Understand the importance of and keep honest, clear, and accurate records in science. b. Understand that hypotheses can be valuable, even if they turn out not to be completely accurate.

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. (NSES Content Standard A)

S7CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities. (NSES Content Standard A)

S7CS6. Students will communicate scientific ideas and activities clearly. (NSES Content Standard A)

S7CS9. Students will investigate the features of the process of scientific inquiry. (NSES Content Standard A)

S7L1. Students will investigate the diversity of living organisms and how they can be compared scientifically. (NSES Content Standard C) a. Demonstrate the process for the development of a dichotomous key. b. Classify organisms based on physical characteristics using a dichotomous key of the six kingdom system (archaeobacteria, eubacteria, protists, fungi, plants, and animals).

S7L2. Students will describe the structure and function of cells, tissues, organs, and organ systems. (NSES Content Standard C)