

Case Details

Case Title:

A tale of two cities

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Grade Level(s):

Middle School

Subject(s):

Life Science

Summary:

Strange things have been going on in Greater Atlanta: power outages, lack of trash collection, bad mail service, and more. What could be happening here, and what will solve the problem? The answer is much smaller than you might imagine.

Adapted from:

Boglin, Kirkpatrick, Phillips, & Walton. (2000). Cell and the city. Retrieved October 13, 2007 from <http://www.bioquest.org/bqemory/cellcity.html>

Suggested Citation:

Hillman, A. L. (2008). *A tale of two cities*. Retrieved June 03, 2012 from Emory University, CASES Online Web site: http://www.cse.emory.edu/cases/casedisplay.cfm?case_id=1685

Learning Objectives:

1. Identify primary, necessary components of a city and correlate them with cell organelles
2. Name and describe functions of organelles
3. Differentiate between plant and animal cell structures
4. Design/model a cell with necessary structures and functions
5. Determine the fate of hypothetically deficient/malformed cells

National/State Standards:

Georgia Performance Standards

S7CS1. Students will explore 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 Standard A)

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. (NSES Standard A)

S7CS7. Students will question scientific claims and arguments effectively. (NSES Standard A)

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

S7L4. Students will examine the dependence of organisms on one another and their environments. (NSES Standard C)