

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Land Use in Your Watershed

SUBJECT AREA:

Science - Earth Science, Environmental Science.

GRADE LEVEL: Sixth through eighth.

DURATION: 30 to 45 minutes; staff will require 30 minutes to set up demonstration.

AUDIENCE SIZE: 75

students at one time; larger groups can rotate through stations.

OVERVIEW: Enviroscape models provide an interactive lesson that simplifies complex



environmental science issues. Students will be able to observe interactions of precipitation with various land use practices. This lesson also provides for discussions of sustainable land use practices, allowing students to develop various environmental scenarios and pollution control solutions.

OBJECTIVES:

The student will:

- Understand the interactions of precipitation on various land use practices.
- Differentiate between point and nonpoint source pollution.
- Utilize solution-based creative thinking skills to implement sustainable land use practices.
- Develop scenarios and pollution control solutions, testing their sustainable land use practice hypothesis on the model.
- Recognize why land management strategies are an important conservation issue.

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SUNSHINE STATE STANDARDS:

- **SC.6.E.6.1** Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion and deposition.
- **SC.6.E.6.2** Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas and lakes, and relate these landforms as they apply to Florida.
- **SC.6.E.7.4** Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere and biosphere.
- **SC.912.E.7.3** Differentiate and describe the various interactions among Earth systems, including atmosphere, hydrosphere, cryosphere, geosphere and biosphere.
- **SC.6.N.1.4** Discuss, compare and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.
- **SC.7.E.6.6** Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.
- **SC.7.N.1.5** Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology and physics.
- SC.8.N.4.1 Explain that science is one of the processes that can be used to inform decision making at the community, state, national and international levels.
- SC.8.N.1.2 Design and conduct a study using repeated trials and replication.
- **SC.8.N.1.4** Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.
- **ELA.K12.EE.1.1** Cite evidence to explain and justify reasoning.
- **ELA.K12.EE.1.1** Use appropriate collaborative techniques and active listening skills when engaging in discussions in a variety of situations.