

SINKHOLES

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Grade Level: 3-6

Time: 1 hour

Geographic Theme:

Sinkholes

Purpose:

Students will work in cooperative groups of 2 and 3 students. They will be introduced to sinkholes, discuss positive and negative effects of sinkholes, create a simulated sinkhole, and then answer questions about sinkholes.

Objective:

- Identify ways that sinkholes are formed.
- Be able to describe causes of sinkholes.
- List effects of sinkholes on the physical and human environment.

Materials:

- "Atlas of Florida" book and CD-ROM
- pictures and information on sinkholes
- oblong balloons
- builder's or sandbox sand
- an empty plastic cup or mini-houses and buildings
- a straight pin
- shoe boxes

Procedures:

- A. Introduce the topic. Discuss natural disasters and compare to sinkholes. Draw pictures to illustrate "before" and "after" of a sinkhole.
- B. Strategies:
 1. Have students think about the positive and negative consequences of the formation of sinkholes.
 2. Assign pairs and ask them to discuss either pros or cons about sinkholes.
 3. Create a simulated sinkhole. Cover the bottom of a shoe box with about two inches of sand.

4. Blow up and tie a balloon. Place it in the center of the box on top of the sand.
 5. Fill the box with enough sand to cover the balloon and lightly pack it down. Place paper cup "house" on top of the sand.
 6. Use a straight pin to pop the balloon. The results of this activity should be similar to what happens when a sinkhole is formed.
- C. **Culminating activities:** Students return to work in pairs. Ask each pair to discuss how the shoe box sinkhole is alike and different from a real sinkhole. Share with the group.

Evaluation:

Students will complete the activities.

National Geographic Standards:

Places and Regions

#4 The physical and human characteristics of a place Physical Systems

#7 The physical processes that shape the patterns of the earth's surface.

Environment and Society

#14 How human actions modify the physical environment.

#15 How physical systems affect human systems.

Extensions:

Students will use the Atlas of Florida book and CD-ROM and other materials to do further research on sinkholes. Students may include sinkholes as their choice for an independent multimedia research project.