

# 3

## Modeling Landslides

VIEW AND REFLECT

**R**AINFALL CAN REPLENISH groundwater and aquifers. It can also cause natural hazards that may result in considerable damage.

A **natural hazard** is a natural event that may negatively affect people and the environment. A **landslide** is the flow of rock, soil, and other earth materials down a slope. Landslides often happen during or after long or heavy periods of rainfall. In this activity, you will learn how scientists built a model to study landslides. A **model** is any representation of a system (or its components) used to help one understand and communicate how it works.

Landslides can destroy everything in their path. It is important to consider landslide risk when deciding where to store nuclear waste.

### GUIDING QUESTION

**How can a natural hazard create challenges for storing nuclear waste?**



*This landslide occurred in a mountainous area of Puerto Rico in 2017, as a result of heavy rainfall during Hurricane Maria.*

## MATERIALS

For each student

- 1 Student Sheet 3.1, "Anticipation Guide: Landslide Video"
- 1 Student Sheet 1.1, "Considering Where to Store Nuclear Waste"

## PROCEDURE

1. Use Student Sheet 3.1, "Anticipation Guide: Landslide Video," to prepare yourself for watching the video.
2. Watch the video about landslides.
3. Return to Student Sheet 3.1, and complete the "After" column by marking whether you agree (+) or disagree (–) with each statement. Under each statement, explain how the activity gave evidence to support or change your ideas.

## ANALYSIS

1. Think about what you learned from watching the video. How did using a model help scientists understand what happens during a landslide?
2. Why might it be important to consider landslide risk when deciding where to store nuclear waste? Use evidence from the activity to support your ideas.

## EXTENSION

What can people do to prepare for a landslide? Visit the *SEPUP Third Edition Geological Processes* page of the SEPUP website at [www.sepuplhs.org/middle/third-edition](http://www.sepuplhs.org/middle/third-edition), and go to the Landslide Preparedness link to learn how to be ready for a landslide. What would you recommend to a friend about how to be prepared for a landslide?