RAFT IDEAS

Topics: Natural Hazards, Emergency Preparedness, Community Studies

Materials List
- ✓ Maps of local area and/or region
- ✓ Colored pencils or markers
- ✓ Optional: Transparency sheets

This activity can be used to support the teaching of:
- Natural Hazards (CA Science Standards: HS Earth Sciences, 9.b)
- Wind and Water Shape Land (CA Science Standards: Grade 4, 5.a, 5.c)
- Earthquakes, Volcanoes, Landslides, & Floods Change Habitat (CA Science Standards: Grade 6, 2.d)
- Map Skills (CA Social Science Standards: Grades 4-5, Analysis skills, Chronological & Spatial thinking, 4)

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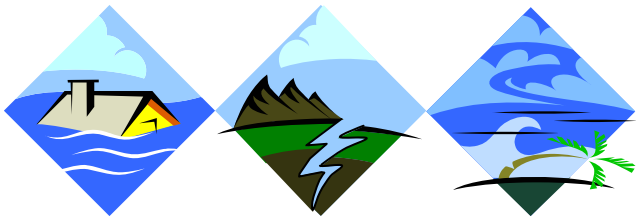
Be Prepared

Predict and prepare for natural hazards in the local community



Evaluate potential natural hazards and develop plans to address the dangers.

To Do and Notice

1. Discuss and list potential natural hazards that may affect the local area (e.g., floods, wildfires, landslides, earthquakes, hurricanes, tsunamis, volcanoes).
2. Examine a local and/or a regional map, locate and color code, using markers or colored pencils, areas which are potentially vulnerable to the hazards. (Optional: trace areas on pieces of transparency using one layer/color for each terrain type.)
   a. Coastal areas - hurricanes, tsunamis, and landslides (depending on region)
   b. Rivers, streams, and low-lying areas - floods; mark flood planes
   c. Forests, grasslands, and areas of dense vegetation - wildfires
   d. Geologically active areas - earthquakes, volcanoes, landslides; mark known fault lines and volcanoes
   e. Mountains, hills, steeply sloped areas - landslides, wildfires
3. Examine the marked map and identify high risk areas for each type of hazard.
4. Working as a class or in small groups, develop emergency response plans:
   a. Locate and mark potential resources to address each hazard (e.g., hospitals, fire stations, emergency shelter locations, water sources for firefighting).
   b. Develop evacuation plans for areas affected by the hazard. Evaluate potential evacuation routes - are they at risk? What are the alternate routes if the main routes are blocked (e.g., roads flooded, overpasses collapsed).
5. One hazard may trigger another hazard; hurricanes may lead to flooding, earthquakes may cause fires and/or landslides. Review the response plans and evaluate the effect of a second (related or unrelated) hazard on the plan.

The Content Behind the Activity

Every year natural hazards lead to thousands of deaths and injuries. They also destroy homes, businesses, and infrastructure (e.g., roads, bridges, power plants, water treatment centers) disrupting people's lives and causing tremendous negative economic impact. The likelihood of certain natural hazards occurring in a particular location may be predicted as they are related to weather patterns or characteristics of the terrain. Identifying areas at risk and developing plans both to reduce risk and to address potential emergencies can help reduce the loss of lives and property. Evaluating the risks of natural hazards and creating emergency response plans allows students to practice their map reading and problem solving skills as well as deepening their connection with their community and surrounding areas.

Taking it Further

Research local Emergency Response plans and compare with created plans.

Web Resources (Visit www.raft.net/more for how-to videos and more ideas!)

- USGS Hazards page - http://www.usgs.gov/hazards/
- FEMA guide to citizen preparedness - http://www.fema.gov/areyouready/

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