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Lesson Plan #1-Japan and the Ring of Fire

Class Description

Sixth Grade social studies: "World Geography"
One 66-minute class

Materials

We are using journals in the History Alive style. On the left side of the journal, students will answer a prompt to get them thinking about the topic. On the right side, students take notes, create diagrams, etc. of the material we are learning.

- 1) Website:
<http://www.pbs.org/wnet/savageearth/hellsrust/html/sidebar3.html>
Animation and explanation of ring of fire.
- 2) Website: <http://pubs.usgs.gov/publications/text/fire.html> map of the Ring of Fire
- 3) PowerPoint of Japan seismic activity
- 4) Blank paper
- 5) Pencils

Rationale

Sixth grade students study world geography. One of our focus continents is Asia. With this lesson, we are meeting the following state of Ohio grade level indicator for sixth grade:

Describe ways human settlements & activities are influenced by environmental factors & processes in different places & regions including: seismic activity.

This is leading to the benchmark that the students should be able to meet at the end of eighth grade:

"Explain how the environment influences the way people live in different places and the consequences of modifying the environment"

Objectives for this lesson

In a paragraph, students will explain at least two ways that the Japanese have adapted to being in the "Ring of Fire" seismic activity zone.

Activities

- 1) Ask students to answer the following prompt, on the left side of their journal: "Be creative time: Draw a picture or write a couple of sentences about what it would be like if the Earth ruled the people on its surface."
- 2) Share the examples.
- 3) Inform the students that the Earth does in fact "rule us". It makes us change our behavior because of its "actions".
- 4) Ask the students if they can think of an example. (***Changing our clothing for the seasons, building houses with insulation for warmth, houses on stilts because of floods, etc.***)
- 5) Tell the students that in Japan they have their own concerns and that they have to adapt.
- 6) Ask the students if they have ever heard of the "Ring of Fire."
- 7) Project on the overhead or have the students visit *****.com to get an explanation of the Ring of Fire.
- 8) On the right side of the notebook, students will divide their page into two different sections for notetaking. Label the first section, "The Ring of Fire." Label the second section, "Adaptations".
- 9) In the first section, students will take notes on the ring of fire and what it is.
- 10) Tell the students that they are moving to Japan.
- 11) Give the students a couple of minutes to discuss with a partner what types of actions they will need to take to be safe in Japan since it is in the "Ring of Fire". (What type of house will they need? How would they survive in an earthquake?)
- 12) Share ideas (***earthquake drills, survival kits, houses that are designed to stay standing.***)
- 13) Challenge the students to create an earthquake survival kit.
- 14) Discuss the options the students chose and if they would work. (***ex. Bread would not stay fresh. Bottled water would last, etc.***)
- 15) Add to the notebook in the second section, "Adaptation", the things Japanese do to live and survive in this area.
- 16) Refer to the attached disaster preparedness list published by the US Embassy in Japan.

Assessment

- 1) Students will share their ideas during the classroom discussions.
- 2) Homework will show items that can be stored for survival.
- 3) On the final test, students will answer an essay question, "Explain at least two ways that the Japanese have adapted their behavior to survive in the Ring of Fire."

Adjustments

Older students can be challenged to create a building that would stay standing in an earthquake. What type of materials and building techniques would survive?

Information taken from the US Embassy in Japan.

A survival storage checklist:

- 1) Water (four liters/one gallon per person per day. Change water every three to five months)
- 2) Food (canned or pre-cooked, requiring no heat or water. Consider special dietary needs, infants, the elderly, pets)
- 3) Flashlight with spare batteries and bulbs
- 4) Radio (battery operated with spare batteries)
- 5) Large plastic trash bags (for trash, waste, water protection, ground cloth, temporary blanket)
- 6) Hand soap and/or disinfecting hand cleaner gel that does not require water
- 7) Feminine hygiene supplies, infant supplies, toilet paper
- 8) Essential medications as required; glasses if you normally wear contacts
- 9) Paper plates, cups, plastic utensils, cooking foil and plastic wrap (wrapped around plates so that they were re-usable) and paper towels
- 10) First Aid kit with instructions
- 11) Yen in small bills (ATMs may not work after a disaster), with coins and phone cards for public phones.
- 12) Place emergency supplies and your telephone in places where they are less likely to be knocked over or buried by falling objects (on the floor under a strong table is a good choice).

Essential Home Preparations Before a Disaster

- 1) Secure water heaters, refrigerators and tall and heavy furniture to the walls to prevent falling.
- 2) Move heavy items to lower shelves, and install latches or other locking devices on cabinets.
- 3) Install flexible connections on gas appliances.
- 4) Remove or isolate flammable materials.
- 5) Move beds and children's play areas away from heavy objects which may fall in an earthquake.
- 6) Register at Embassy or Consulate serving your area; contact information is on the reverse side of this checklist.

Essential Planning Before a Disaster

- 1) Draw a floor plan of your home showing the location of exit windows and doors, utility cut off points, emergency supplies, food, tools, etc. Share it with baby-sitters and guests.
- 2) Establish family meeting points with alternate sites inside and outside of your home for all members to gather in the event of an evacuation.
- 3) Establish reunion sites with alternate sites for when the family is not at home, e.g., local shelter, neighbor's house, park, school.
- 4) Designate a person outside of your immediate area for separated family members to call to report their location and condition if separated.
- 5) Learn or establish disaster policy/planning at your children's school
- 6) Know your neighbors and make them aware of the number of people living in your home.
- 7) Learn where the nearest designated shelter for your neighborhood is.
- 8) Photocopy passports and other important documents. Store copies away from home (for example, at work).
- 9) Learn how to contact the police, fire and rescue services in Japanese. Be able to provide your address in Japanese.