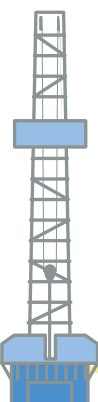
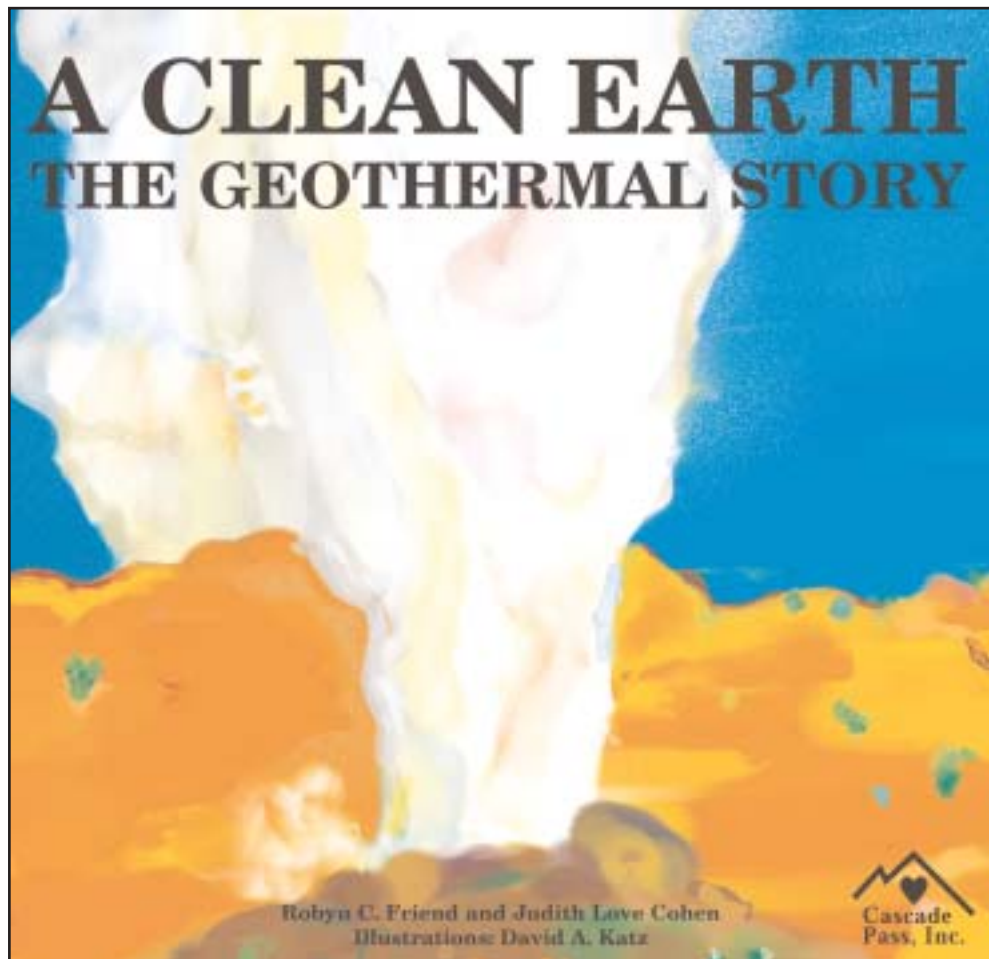


## A CLEAN EARTH THE GEOTHERMAL STORY



## A CLEAN PLANET THE GEOTHERMAL STORY

### LESSON PLAN 1

- PURPOSE:** To understand what volcanoes look like.
- MATERIALS:** Scissors, glue, shoe boxes, art supplies (paper, crayons, paints, colored pencils and clay).
- PROCEDURES:** Have children take the shoe box and create an area that will contain a volcano. surrounded by other mountains, lakes, rivers, etc. They should create an eruption with hot molten lava running down the side of the volcano.
- CONCLUSIONS:** What is coming out of the volcano?  
Where did it come from?  
How did it get past the Earth's crust?
- RESOURCES:** Pictures of erupting volcanoes from the internet.

### LESSON PLAN 2

- PURPOSE:** To understand what the inside of the Earth is like: hot!
- MATERIALS:** Art supplies (paper, crayons, paints, colored pencils and glitter).
- PROCEDURE:** Have children make a large circle to represent the Earth cut open. Now have them describe and then draw the layers inside the Earth: a solid and very hot inner core, a liquid outer core, a semi-melted mantle, and finally a solid crust that we like and walk on.
- CONCLUSIONS:** Heat flows outward from the inside of the Earth. The crust separates us from the hot inside.

### LESSON PLAN 3

- PURPOSE:** To understand where geothermal resources are found and how they can be located.
- MATERIALS:** Copies of world maps, or globes, art supplies (paper, pencils, crayons, marker pens, and/or gold stars or similar stick-on colors).
- PROCEDURE:** Have children look at the world map or atlas and locate their home area with oceans, lakes, and mountains nearby. Then have children look at resources such as travel books around the world. Have them make a list of



volcanoes and geysers. For example: The Geysers in Sonoma County, California or Mount Rainier, near Seattle Washington. After they have created a list, they should locate the areas on their map or globe and mark them with stars, crayon, or marker pen. After they have marked a number of these areas, does there seem to be a pattern or connection between them?

**CONCLUSIONS:** Where are these volcanic and geyser areas located?

What is the connection?

What is there about the areas that make them home to such things?

**RESOURCES:** Books about volcanoes and geysers, or geothermal books such as “*Geothermal Energy as a Source of Electricity: A Worldwide Survey*” by Ronald DiPippo.

