

# Who Am I?

Hello! You know me—you walk on my skin every day. Trucks and trains ride all over me. Rivers run down my back. Big machines dig holes in me. Ouch!

I bet you think I'm pretty tough. I stand so still—a giant rock—while you move all over me. But I've got a secret—I move, too. I'm moving all the time. You can't feel it, but I am.

I'm not a solid rock, you know. Deep inside, I'm very hot—so hot my rocks are melted. My skin floats on a huge ocean of melted rock. I call my melted rock magma.

My skin is different from yours, too. Your skin is all one piece—mine's not. Mine is cracked into pieces—sort of like a hard-boiled egg that's dropped on the floor. I call my pieces of skin my plates.

My plates float around on my magma. Sometimes they pull away from each other. Sometimes they bang into each other. Usually they move very, very slowly—only an inch or two a year. You can't feel that.

Once in a while, my plates bang against each other fast. Watch out! That's an Earthquake.

And, sometimes, my insides come bubbling out around the cracks. Watch out! Those are my volcanoes.

In most places, my skin is pretty thick. My hot magma is miles underground, but along my cracks, it comes close to the surface. It can really heat up the rocks and water in my skin.

You can use all this heat. I make more all the time. You can take a bath in my hot water. You can heat your house with it and use it to make electricity.

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# Supplemental Activities

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### Let's Look Inside (Make a Cross-Section of the Earth)

#### Materials

- Several colors of clay (yellow, red, orange, brown, blue, and green)
- Plastic knife

#### Procedure

- Have each student make a small ball of yellow clay (representing the Earth's inner core). Cover the yellow layer with a layer of red, a layer of orange, then a layer of brown clay (representing the outer core, magma, and mantle). Have the students cover the Earth with blue and green clay (representing water and land). Make mountains, valleys, etc.
- Have each student cut his/her Earth in half to examine the layered structure. Discuss how the crust is thin in some places and thicker in others. Try to find places where the magma in the mantle (orange) comes close to the surface. (See *Elementary Geothermal Energy Infosheet*)

