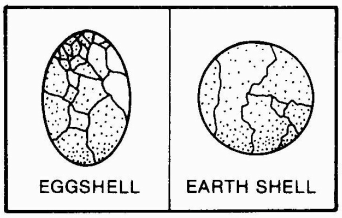
Name _____ period _____

Science Shorts -6

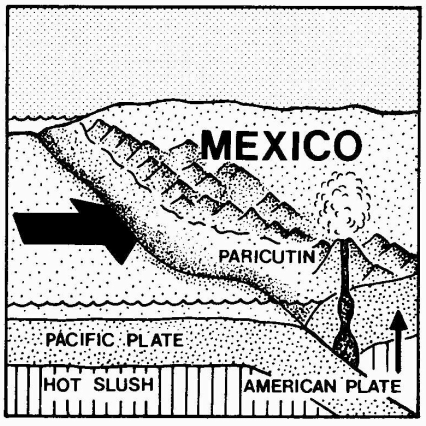
EARTH IS ALL CRACKED UP

When you crack the shell of a hard-boiled egg, you get a lot of separate plates of shell. The crust of the earth is broken into plates, too, but the plates of the earth's crust don't stay put like the plates on a hard-boiled egg. The plates of the earth's crust move very slowly—just a few centimeters a year.



Some of the plates of the earth's curst are growing. Magma from the layer of "slush" under the crust pushes up between the plates. This makes mountains. The floor of the Atlantic Ocean has a ridge of mountains made this way going from the Arctic to the Antarctic.

When a plate of the earth's crust grows at one edge, the other edge gets pushed up against another plate. Something has to give. In many places the growing plate pushes down under the plate next to it, and the edge goes down into the slush of partly melted rock under the crust. Where one plate presses and rubs against the other, some of the rock turns to magma. This magma is lighter than the rock around it, so it slowly moves up. If it gets tc the top it will form volcanoes. As it moves up, it pushes other rock out of its way. This makes earthquakes. Many of the world's earthquakes and volcanoes happen where one of the plates in the earth's crust is pushing under another plate.

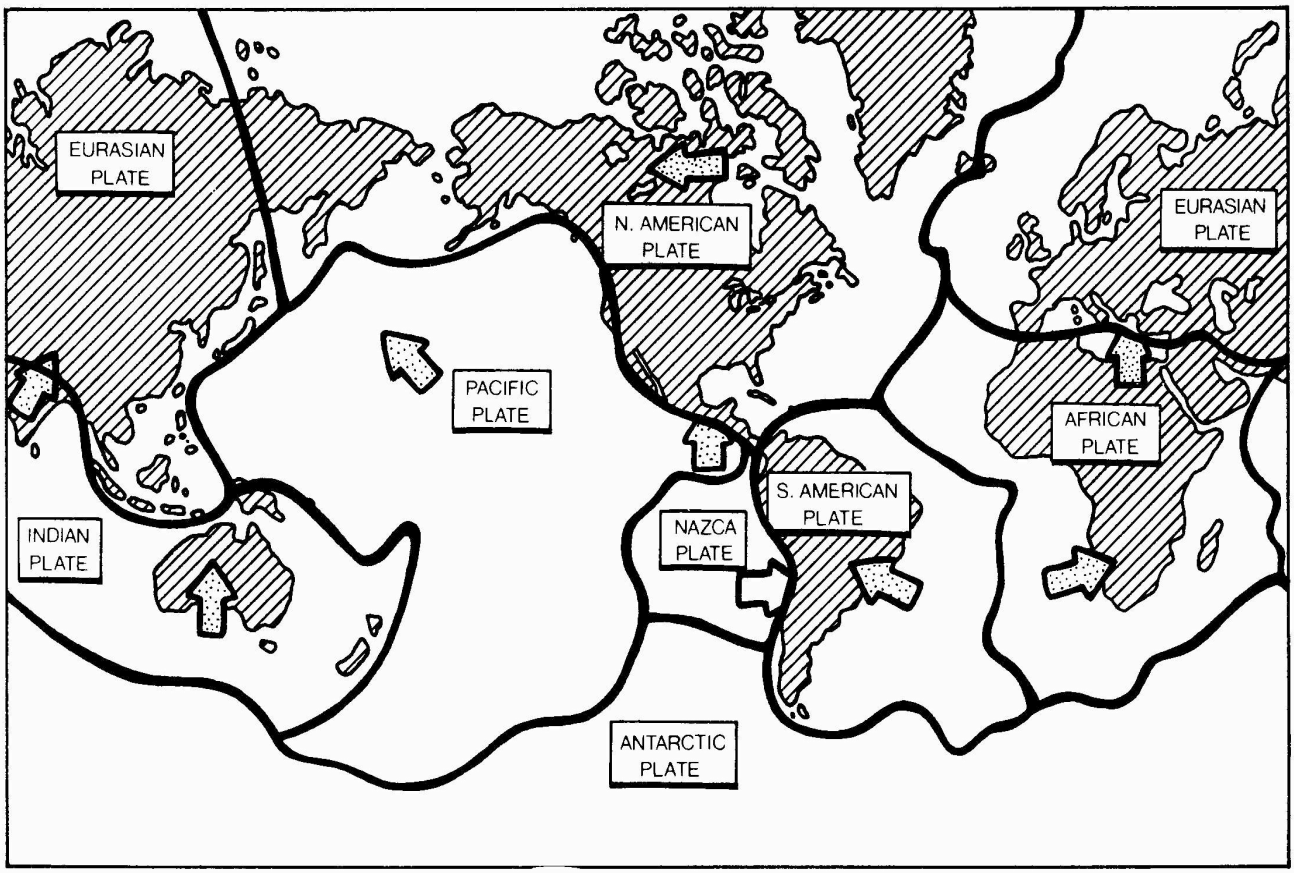


1. Many volcanoes and earthquakes are caused by
   a. thunderbolts.
   b. meteors cracking the earth's shell.
   c. magma pushing up from below.

2. If you live over the place where one plate is pushing down under another, you may
   a. hear the scraping together of the plates.
   b. see volcanoes or feel earthquakes.
   c. be able to dig a hole deep enough to see what's going on.

3. From this story you can tell that
   a. volcanoes and earthquakes are more likely some places than others.
   b. hurricanes and tornadoes don't happen near volcanoes.
   c. the ocean floor is flat and smooth.

PLATES OF THE EARTH'S CRUST



Most scientists agree that the earth's crust is made of plates that move slowly. They are not yet sure exactly where all the edges are, nor even just how many plates there are in all. This map shows the biggest plates as we now think of them. In a few years we will know more.

Choose a color for each of the eight big plates. Show in the boxes below what color you plan to use for each. Color lightly so you can read the labels.

- ☐ African Plate
- ☐ Antarctic Plate
- ☐ Eurasian Plate
- ☐ Indian Plate
- ☐ Nazca Plate
- ☐ North American Plate
- ☐ Pacific Plate
- ☐ South American Plate