evropský sociální fond v ČR
EVROPSKÁ UNIE
MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY
OP Vzdělávání pro konkurenceschopnost
PARDUBICKÝ KRAJ
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Task 1

Read the text from
http://www.geography4kids.com/files/earth_tectonics.html

Answer these questions.

1. What is the name of the top layer of the Earth?
2. How many major plates are on the surface of the Earth?
3. What is the name of the process when the floating plates spread apart?
4. What is the name of the process when the plates are moving together?
5. What is Pangea?

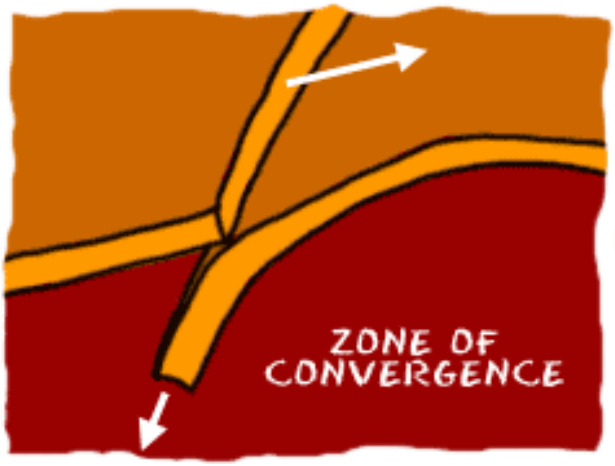
Plates Are Moving Beneath You

The basic idea behind plate tectonics is that there are eight major plates on the surface of the Earth. There are also bunches of minor plates. The plates are like the skin of the planet. They constantly move around the planet. When we say constantly moving, we're talking centimeters each year. You couldn't sit down and watch it happen. Or can you? You could

watch it happen if you watched an **earthquake**.

They Really Float?

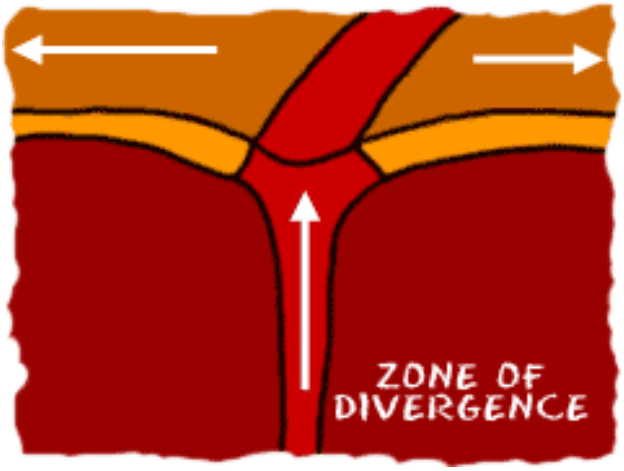
These plates make up the top layer of the Earth called the **lithosphere**. Directly under that layer is the **asthenosphere**. It's a flowing area of molten rock. There is constant heat and radiation given off from the center of the Earth. That energy is what constantly heats the rocks and melts them. The tectonic plates are **floating** on top of the molten rock and moving around the planet. Think of it as ice floating at the top of your soda. When the continents and plates move it's called continental drift.



Think of the molten rock in the asthenosphere, not as rock, but as a liquid. It has currents and it flows just like any other liquid. When the floating plates spread apart, it's called a **spreading center**. When they are moving together, it's called a **subduction zone**. When they are forced together, it is called a **zone of convergence**. One of the plates usually moves under the other in a zone of convergence. As the plate moves down into the asthenosphere it begins to melt. The place where they meet has a crack or a trench. Some of the deepest parts of the oceans are these trenches.

Scientific Evidence

How do we back up these ideas? Scientists have traveled all over the Earth and found evidence that supports the ideas of plate tectonics. First, they looked



at the continents. Ever notice how Africa and South America look like they could fit together? Scientists did. They cut up a map, moved the continents close together, and came up with a huge landmass called Pangaea (one super-continent).

Scientists also looked at the **fossils** (long-dead animal bones and plants) on the different continents. They found that fossils on Australia were similar to the ones in Southern Asia. They think the same plants once lived on the continents, but when they split apart, new plants developed. When they were digging, they also looked at the types of rocks. The West Coast of Africa has very similar rock formations to those on the East Coast of South America. They are too similar to be a coincidence.

Task 2

Translate following words :

Constantly move

molten rock

continental drift

crack or trench

fossils

split apart

similar to

coincidence

plants developer

find evidence