

Lesson 1: What are the Earth's Layers?

atmosphere - the layer of gases that surround the earth and protect it from too much sunlight

hydrosphere - the water part of the earth's surface; includes the oceans, sea, rivers and lakes.

lithosphere - includes the crust and the outer rigid layer of the earth; rocks, minerals and soil are part of it

three main parts of the earth: (compared to a peach)

1. core - the center (peach pit) of the earth
2. mantle - the middle layer of the earth which lies between the core and the crust (fleshy fruit part)
3. crust - the top layer of the earth which is above the mantle (the skin)

Lesson 2: How Does the Earth's Crust Move?

Scientists know the earth's crust is broken into about 20 huge sections (or pieces) called plates. The plates ride or float on top of the earth's mantle. The mantle flows like a hot thick soup. This flowing mantle carries the plates causing them to move as the mantle flows.

plate tectonics - the theory that says the earth's surface is made up of about 20 moving plates

Earthquakes, volcanoes and mountains are caused by the movement of these plates.

a hypothesis - a guess or an idea

Lesson 3: What Changes the Earth's Surface?

1. weathering - the process that breaks down and changes rocks
2. erosion - the moving of weathered rock or material from place to place
3. deposition - the dropping of eroded materials

Lesson 4: How Do Rocks Reveal Changes on the Earth?

rock cycle - the ways that rocks change from one form to another

Three types of rocks:

1. igneous - melted mantle that has cooled
2. sedimentary - solid particles of rocks cemented or pressed together
3. metamorphic - igneous or sedimentary rock changed by heat or pressure

How can rocks show that changes take place on the earth?

Mountains forming, volcanoes erupting and earthquakes quaking cause rocks to change position. Some are raised or lowered, moved, and exposed (no longer buried). Scientists can study these rocks to tell what events happened, where the events occurred, and often the approximate time they took place.

fossils - remains or traces of a dead organism trapped and preserved in rock