

1. What is uplift? What causes it? What is an example of uplift?

Uplift is any process that moves the surface of the Earth to a higher elevation. Earth's internal energy produces uplift. Mountains and plateaus are examples of uplift.

2. What is erosion? What are at least 3 causes of erosion? What is an example of erosion?

Erosion is the process that wears away soil and rock. Erosion can be caused by water, wind, ice, and gravity. An example of erosion is rivers and streams carrying rock fragments as the water flows downhill.

3. How are U-shaped valleys formed?

Glacial erosion (erosion caused by glaciers) causes U-shaped valleys to form.

4. What can plate tectonics cause?

Plate tectonics are forces of earth that can push solid rock upwards.

5. Name two volcanoes that are located in California.

Mount Shasta and Lassen Peak are examples.

6. Why are some valleys better for growing crops?

Some, like California's Central Valley, have rich soil that was carried down from the mountains.

7. How are California beaches created?

The beach sand is made up of grains of rock loosened from mountains and carried to the coast by rivers.

8. What happens to the materials that make up the Earth as you go deep into the Earth?

The temperature and pressure increase.

9. How do scientists study the different layers of the Earth?

Scientists study the seismic waves that pass through the planet during an earthquake.

10. What is the lithosphere?

The lithosphere is the brittle, outermost, rigid layer of the earth. It is made of two parts. It is not a single, solid layer. Instead it is made up of pieces called tectonic plates.

11. What is the asthenosphere?

The solid, but plastic layer found in the upper mantle on which the crustal plates sit is the asthenosphere.

12. What is the mantle?

The mantle is the thick middle layer of the Earth.

13. What is the crust?

The crust is the thin, rocky layer of Earth.

14. What are the layers of the earth called?

Crust, mantle, and core

15. What is the core and what is it made of?

The core is the dense, metallic, central (inner) layer of Earth. It lies beneath the mantle. It is molten metal. It is mostly iron, with smaller amounts of nickel.

16. How does temperature impact the density of metal?

As the temperature of material is raised, the density of the material decreases.

17. How does pressure impact the density of metal?

As pressure on metal is raised, the density of the material increases.

18. Are elements that make up the mantle and crust rocks more dense, less dense, or of the same density as the material in the Earth's core?

The elements that make up the mantle are less dense than the material in the Earth's core.

19. Draw a diagram and label how the convection process works.