

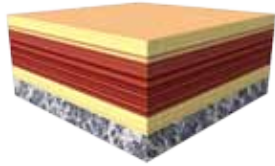
The Earth Science Discovery Cave

By: Nancy Volk

MOST*

Station 1 Rock Layers and Fossils

Which of the following layers is the oldest? Circle the correct answer.



Bottom Layer Middle Layer Top Layer

Circle the fossil you found in the rock wall.



Trilobite



Ammonite



Crinoid

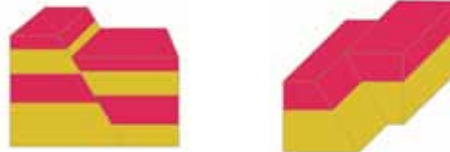
When the land is pushed up by great forces, rock can bend or break.

Bends are called **folds** or **faults**. (Circle one.)

Breaks are called **folds** or **faults**. (Circle one.)

Now, find them on the rock wall.

A fault is a break in the rocks along which movement has taken place. Circle the diagram that shows a vertical fault.



Station 2 Plate Tectonics and Composition of the Earth

The center of the earth is the same or more than the temperature of the surface of the sun. This temperature is _____°Celsius.

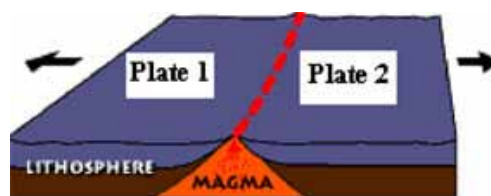
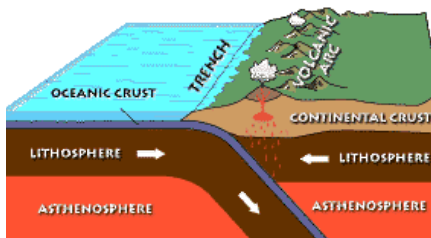
As you move from the crust of the earth toward the center of the earth, the layers become more dense. Matter is packed more closely together. At high temperatures the outer core is liquid, but the inner core is so dense that it remains solid. This inner core is composed of Nickel and _____.

Why does the earth's crust float on the mantle? Choose one.

It is less dense.

It is more dense.

Circle the picture where volcanoes are located. Put an X over the picture where new ocean crust is formed.



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New York State Standards

Standard 1: Mathematical Analysis
Key Idea 2: M2.1ab

Standard 4: Living Environment
Key Idea 1: 1.1d, 1.1h
Key Idea 3: 3.2b, 3.2c
Key Idea 5: 5.1a, 5.1b

Standard 4: Physical Setting
Key Idea 2: 2.1b, 2.1d
2.1f, 2.2b, 2.2c,
2.2d, 2.2e, 2.2f

Standard 6:
Key Idea 2
Key Idea 5:5.2

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Station 3 Coral Reef and Rock Formation

Is living coral an **animal** or a **plant**? (Circle one.)

Is it free swimming as a **larva** or an **adult**? (Circle one.)

Coral reefs are biologically diverse marine ecosystems. 1/4 of all known fish species live in reefs even though reefs cover only 1/4 of 1% of the marine area.

The oil spill in the Gulf of Mexico seems to have resulted in the death of a coral reef. What effect will that have on Dory the Blue Tang Fish?

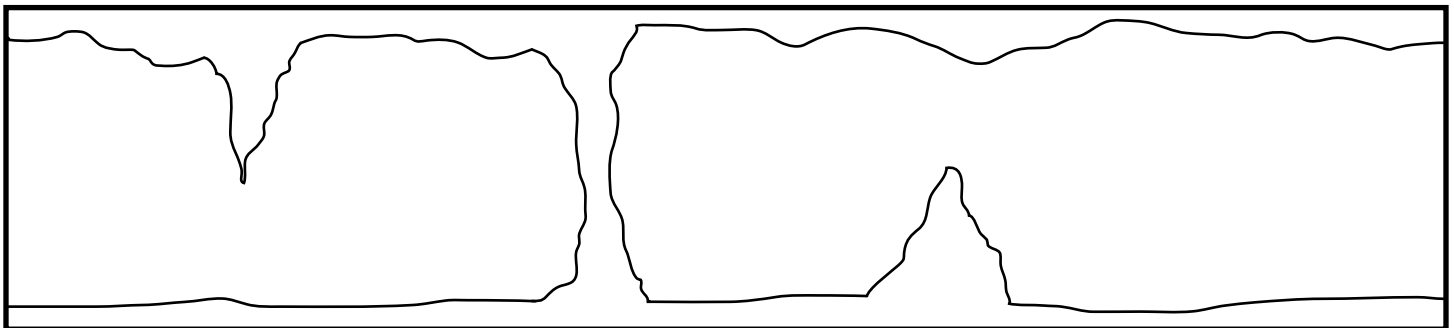


The flow of water, slightly acidic from acid rain or from passing through something acidic, is what digs out caves. It essentially widens cracks in rocks. How's Caverns were formed by water flowing through: (Circle one.)

Igneous Rock

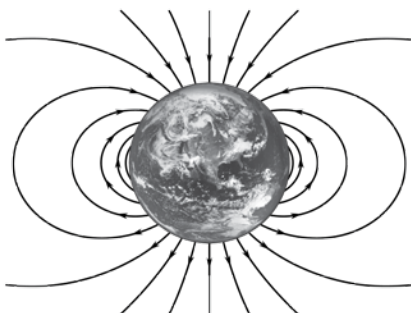
Limestone

In the cave provided below, label the stalactite, stalagmite and column formations.



Station 4 Geomagnetism and Glaciers

The earth's magnetic field is a result of the movement of the fluid outer core as the earth rotates. Magnetic polarity changes or reverses periodically. **True or False:** A record of these changes is found in samples of the rock layers.



The picture to the left shows our current magnetic field. In the next 3,000-5,000 years, when the field reverses, how will the diagram change?

If the polar ice melts, what will happen to the Statue of Liberty?

What will happen to the people who live in New York City?

