

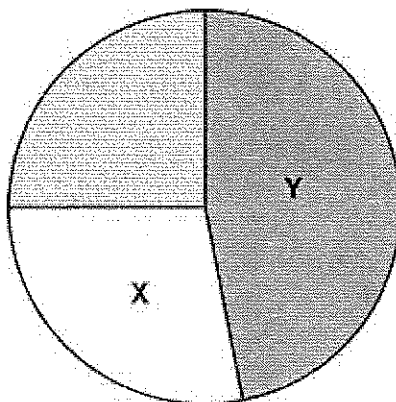
Directions: Answer the following question(s).

1 Imprints of the shells of ocean clams are often found in the rocks of the Appalachian Mountains. What do these imprint fossils MOST likely indicate?

- A. These mountains were once under the ocean.
- B. These mountains once had a more rainy climate.
- C. Mountain river clams evolved from ocean clams.
- D. Ocean clams evolved from mountain river clams.

Master ID: 521979 Revision: 1
 Correct: A
 Standards: S6E5.g

2 The circle graph below shows the three most common elements in Earth's crust.



Which elements are represented by the letters X and Y?

- A.

X	Silicon
Y	Oxygen
- B.

X	Oxygen
Y	Nitrogen
- C.

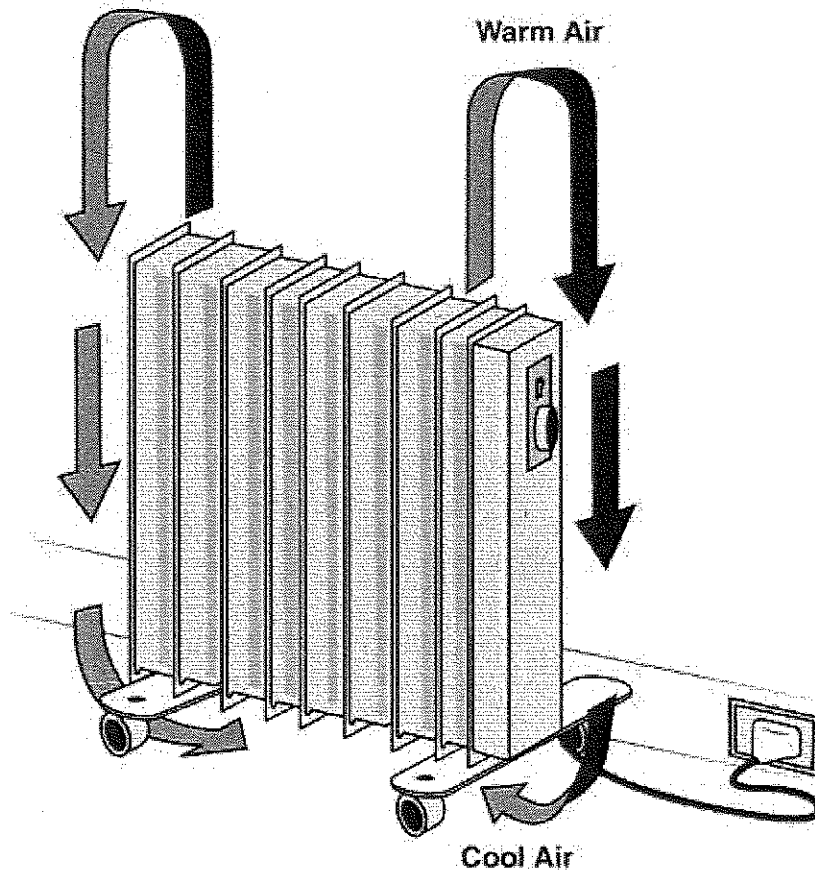
X	Carbon
Y	Silicon
- D.

X	Hydrogen
Y	Carbon

Master ID: 429579 Revision: 1
 Correct: A
 Standards: S6E5.a

Directions: Answer the following question(s).

- 3 The picture shows how air in a room is warmed by a heater.



How does this system compare to the way heat from the core of Earth reaches the surface?

- A. The heater uses convection currents to transfer heat, and Earth's interior uses radiation.
- B. The heater uses radiation to transfer heat, and Earth's interior uses conduction.
- C. Both systems use convection currents to transfer heat.
- D. Both systems use conduction to transfer heat.

Master ID: 327186 Revision: 1
Correct: C
Standards: S6E5.a

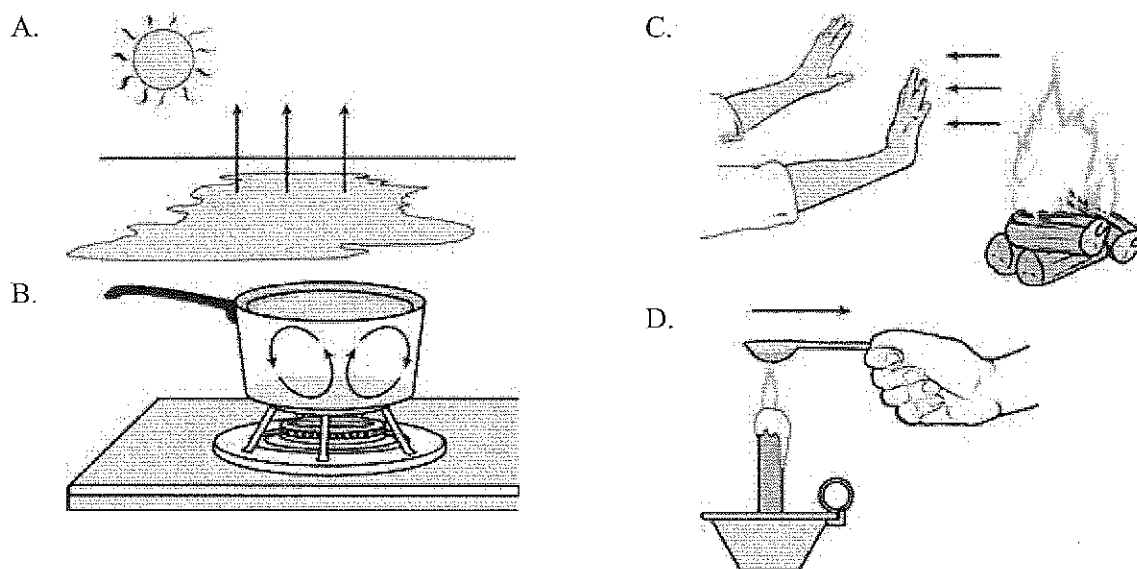
Directions: Answer the following question(s).

4 Scientists estimate that the temperature of Earth's core is as high as 6000°C. Which BEST explains how heat from the core reaches the surface?

- A. Hot materials in the mantle circulate the same way warm air rises and cool air sinks in a heated room.
- B. Energy is released as molecules in the mantle form new compounds that flow toward the crust.
- C. Energy from atoms vibrating near the core passes through the mantle until it reaches the crust.
- D. Heat from the core radiates through the mantle the same way sunlight passes through space.

Master ID: 327184 Revision: 1
Correct: A
Standards: S6E5.a

5 Which model BEST shows how heat from inside of Earth reaches the surface of Earth?



Master ID: 327182 Revision: 1
Correct: B
Standards: S6E5.a

Directions: Answer the following question(s).

6 Which of the following has the greatest direct influence on movement of the lithosphere?

- A. the Sun
- B. the Moon
- C. Earth's core
- D. Earth's mantle

Master ID: 163236 Revision: 1
Correct: D
Standards:
S6E5.a

7 Which of these correctly lists Earth's layers in order from the center to the surface?

- A. outer core, inner core, asthenosphere, lithosphere
- B. asthenosphere, lithosphere, outer core, inner core
- C. inner core, asthenosphere, lithosphere, outer core
- D. inner core, outer core, asthenosphere, lithosphere

Master ID: 163082 Revision: 1
Correct: D
Standards:
S6E5.a

8 A student uses clay to construct a model of Earth. Which layer of the model should be the thinnest layer?

- A. the layer representing the mantle
- B. the layer representing the outer core
- C. the layer representing the inner core
- D. the layer representing the crust

Master ID: 162963 Revision: 1
Correct: D
Standards:
S6E5.a

Directions: Answer the following question(s).

9 Which layers of Earth are mostly made of solid material?

- A. inner core and outer core
- B. crust and inner core
- C. crust and mantle
- D. mantle and outer core

Master ID: 162947 Revision: 1
Correct: B
Standards: S6E5.a

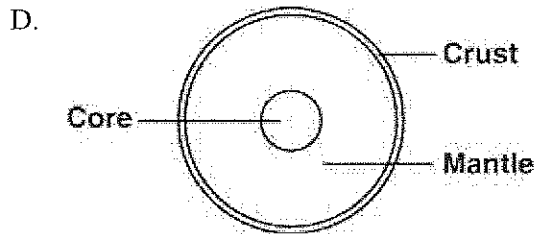
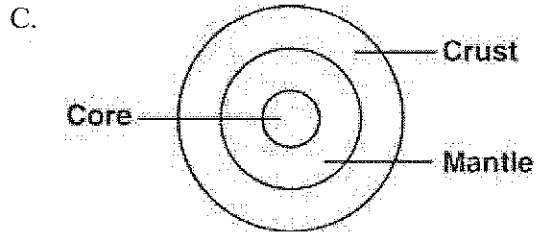
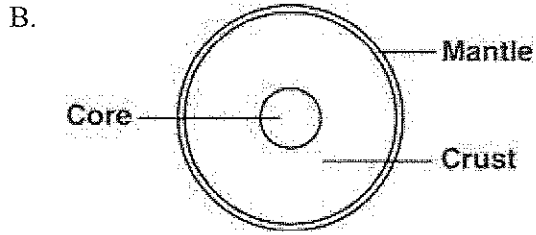
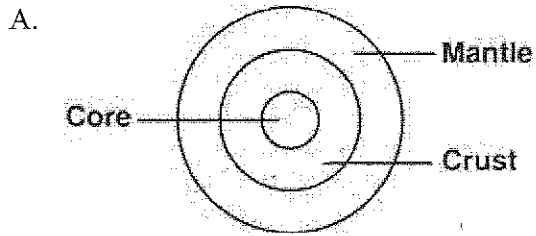
10 The ichthyornis was a type of bird that lived over 65 million years ago. It lived near the sea and hunted for fish over the water. Fossils have been found in Kansas, many miles from the present-day ocean. Which cause of extinction is MOST likely to be found in the fossil record along with ichthyornis fossils?

- A. changes in the environment
- B. diseases causing illness
- C. changes in the weather
- D. predator animals

Master ID: 161693 Revision: 1
Correct: A
Standards: S6E5.g

Directions: Answer the following question(s).

11 Which model BEST represents the internal structure of Earth?



Master ID: 161511 Revision: 1
Correct: **D**
Standards: S6E5.a

Directions: Answer the following question(s).

- 12 The interior of Earth is made up of several physically different layers. The solid layer of Earth that moves over a viscous layer is called the
- A. core.
 - B. crust.
 - C. asthenosphere.
 - D. atmosphere.

Master ID: 161471 Revision: 1
Correct: B
Standards:
S6E5.a

- 13 A difference between the oceanic crust and the continental crust is that the oceanic crust is
- A. composed chiefly of sedimentary rocks.
 - B. more dense than the continental crust.
 - C. older than the continental crust.
 - D. continually being created.

Master ID: 161369 Revision: 1
Correct: B
Standards:
S6E5.a

- 14 Scientists are able to conclude that a forested ecosystem existed in Antarctica millions of years ago by studying
- A. the current climate.
 - B. the fossil record.
 - C. glacial movement.
 - D. seafloor spreading.

Master ID: 161368 Revision: 1
Correct: B
Standards:
S6E5.g

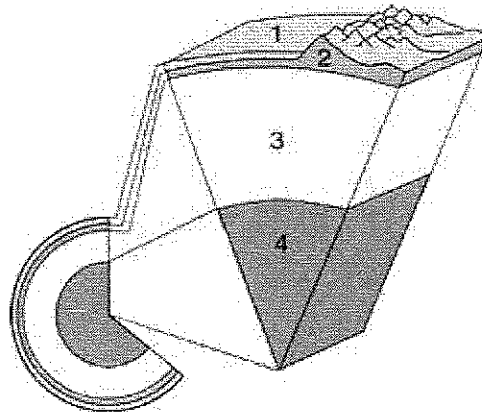
Directions: Answer the following question(s).

15 The continental crust floats on top of the mantle because the crust is

- A. less dense than the mantle.
- B. made of a liquid material.
- C. made up of oxygen which is a light element.
- D. separated from the mantle by a layer of water.

Master ID: 161313 Revision: 1
Correct: A
Standards:
S6E5.a

16 A cross section of Earth is shown below.



Which labeled part is thought to be composed primarily of iron and nickel?

- A. 1
- B. 2
- C. 3
- D. 4

Master ID: 161290 Revision: 1
Correct: D
Standards:
S6E5.a

Directions: Answer the following question(s).

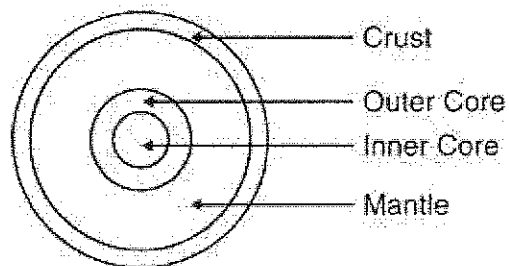
17 The core of Earth is divided into two layers. The outer core is made of

- A. basaltic rocks.
- B. silicate rocks.
- C. solid iron and nickel.
- D. molten iron and nickel.

Master ID: 161279 Revision: 1
Correct: D
Standards: S6E5.a

18 The picture below shows the layers of Earth.

Layers of Earth



When compared to the other layers of Earth, which layer has the lowest density?

- A. crust
- B. inner core
- C. mantle
- D. outer core

Master ID: 161230 Revision: 1
Correct: A
Standards: S6E5.a

Directions: Answer the following question(s).

19 A student uses clay to build models of an oceanic plate and a continental plate. What characteristic **CANNOT** be accurately represented by the models?

- A. the shapes of plates
- B. the relative sizes of plates
- C. the relative densities of plates
- D. the arrangement of plates relative to one another

Master ID: 161146 Revision: 1
Correct: C
Standards: S6E5.a

20 In what section of Earth do earthquakes happen?

- A. crust
- B. mantle
- C. inner core
- D. outer core

Master ID: 161010 Revision: 1
Correct: A
Standards: S6E5.a

21 Which section of Earth is composed primarily of liquid metal?

- A. crust
- B. mantle
- C. outer core
- D. inner core

Master ID: 159219 Revision: 1
Correct: C
Standards: S6E5.a

Directions: Answer the following question(s).

22 Which type of rock would MOST likely contain a fossil?

- A. metamorphic rock
- B. sedimentary rock
- C. igneous rock
- D. molten rock

Master ID: 158908 Revision: 1
Correct: B
Standards: S6E5.g

23 What BEST describes the mantle of Earth?

- A. a thin layer that is located on the surface
- B. a solid layer made of iron and nickel
- C. the largest layer between the crust and outer core
- D. the smallest layer that is made up of molten rock

Master ID: 158856 Revision: 1
Correct: C
Standards: S6E5.a

24 The inner core of Earth is solid because of the

- A. rate of rotation.
- B. extreme temperature.
- C. amount of pressure.
- D. magnetic field.

Master ID: 158855 Revision: 1
Correct: C
Standards: S6E5.a

Directions: Answer the following question(s).

25 Earth is made of different layers that have varying characteristics. Which is the thickest layer?

- A. the mantle
- B. the inner core
- C. the outer core
- D. the crust

Master ID: 158849 Revision: 1
Correct: A
Standards: S6E5.a

26 Due to extreme pressure, the inner core of Earth is

- A. solid.
- B. liquid.
- C. gas.
- D. plasma.

Master ID: 158848 Revision: 1
Correct: A
Standards: S6E5.a

27 Thousands of fish fossils discovered high in the Rocky Mountains MOST likely indicate that

- A. ancient sea levels were once high enough to cover the mountains.
- B. a large flood washed the fish up to the tops of the mountains.
- C. the mountains were once part of the sea floor that was pushed up by tectonic forces.
- D. the fish were inhabitants of an ancient stream that became frozen during the ice ages.

Master ID: 158847 Revision: 1
Correct: C
Standards: S6E5.g

Directions: Answer the following question(s).

28 Which statement is MOST accurate regarding fossils?

- A. Fossils found in upper layers of a rock section are generally older than those below it.
- B. Fossils are an indicator of ancient environmental conditions.
- C. Absolute ages of fossils are determined by using carbon dating technology.
- D. Marine organisms with hard body parts rarely become fossils.

Master ID: 158846 Revision: 1
Correct: B
Standards:
S6E5.g

29 The discovery of fossilized coral reefs on land is evidence that

- A. salt water changes coral into fossils.
- B. the reefs formed in a freshwater lake.
- C. the sea level has changed over time.
- D. coral reefs can form on dry land.

Master ID: 158845 Revision: 1
Correct: C
Standards:
S6E5.g

30 Which statement below BEST explains why several fossils of sea organisms were discovered buried deep in an area of dry land?

- A. The fossils changed locations.
- B. The area had a shift in climate.
- C. The land was once underwater.
- D. A glacier once covered the area.

Master ID: 158778 Revision: 1
Correct: C
Standards:
S6E5.g

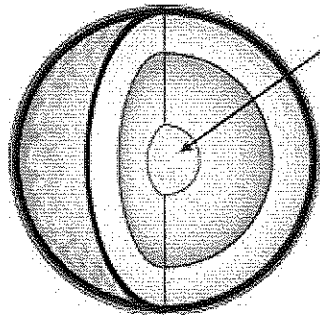
Directions: Answer the following question(s).

31 A geologist found several types of seashell fossils in a rock layer. Which is the BEST conclusion about the rock layer?

- A. The rock was once buried under a swamp.
- B. Water from a river washed across the rock.
- C. The rock was once sediment at the bottom of an ocean.
- D. Migrating animals dropped the seashell into the rock.

Master ID: 157310 Revision: 1
Correct: C
Standards: S6E5.g

32 Use the following diagram.



Name the center of Earth and give one of its characteristics.

Master ID: 157033 Revision: 1
Rubric: 2 Point(s)

Scoring Rubric

2-point response includes both of the following components:

- The student correctly identifies the center of Earth as the core.
- The student responds with one of the following characteristics:
 - Hottest layer
 - Outer part is liquid/magma
 - Inner part is solid
 - Made of hot iron/iron-nickel alloy
 - Solid part spins within liquid part
 - Other plausible characteristic

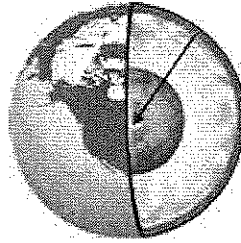
1-point response includes only one of the components of a 2-point response.

0-point response shows no understanding of the task.

Standards: S6E5.a

Directions: Answer the following question(s).

33 Use the diagram to answer the question that follows.



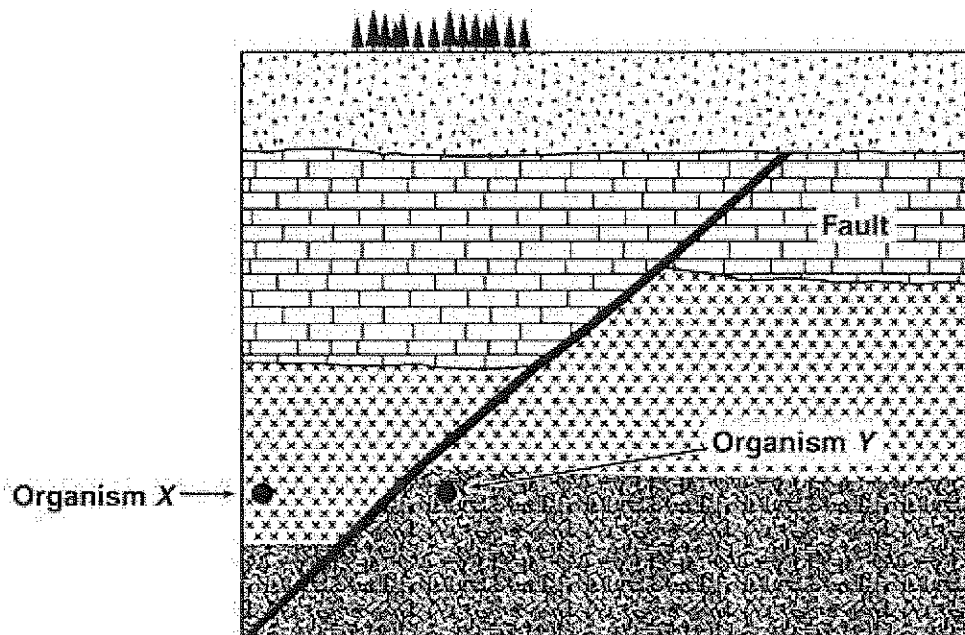
Which is the correct order of Earth's layers, from outside to inside?

- A. crust, core, mantle
- B. crust, mantle, core
- C. mantle, crust, core
- D. core, crust, mantle

Master ID: 156890 Revision: 1
Correct: B
Standards:
S6E5.a

Directions: Answer the following question(s).

34 The diagram shows where fossils of two organisms were found in rock layers.



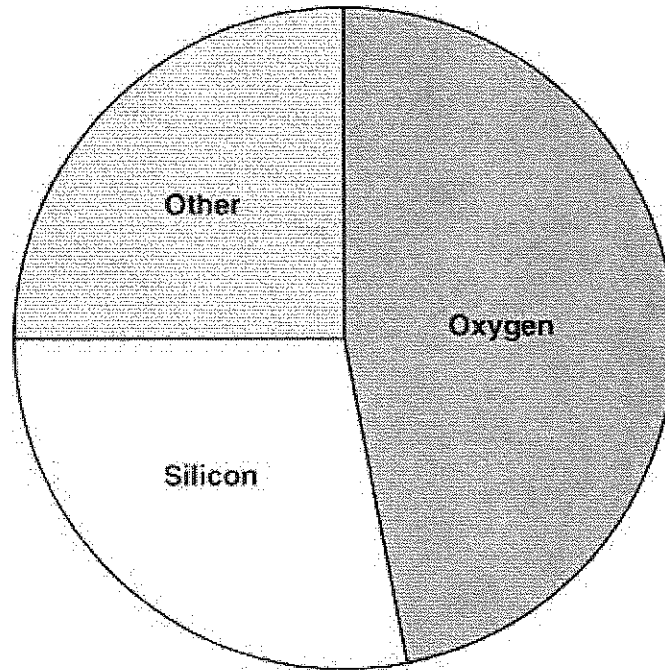
Which conclusion does this diagram BEST support?

- A. The earthquake that caused the fault most likely killed both organisms because the fossils formed during the time of the earthquake.
- B. The fault formed while Organism X was living and after Organism Y had died because the fault is located between the two fossils.
- C. Both organisms lived at the same time because the fossils they formed were found in rock layers of about the same depth.
- D. Organism Y lived before Organism X because Organism Y was found in an older rock layer.

Master ID:	327188	Revision:	1
Correct:	D		
Standards:	S6E5.g		

Directions: Answer the following question(s).

35 This circle graph shows that two common elements make up about 75% of a specific type of matter.



Which type of matter does the circle graph MOST likely represent?

- A. Earth's atmosphere
- B. living organisms
- C. ocean water
- D. Earth's crust

Master ID: 196805 Revision: 1
Correct: D
Standards: S6E5.a