Earth’s Layers and Landforms Test Standard

1. Imagine you could travel in a straight line through Earth from a point on one side and come out on the other side. What compositional layer would you travel through in the exact center of Earth?
   A. core    B. crust    C. lithosphere    D. mesosphere

2. The following steps are part of a laboratory exercise that Florida sixth-grade students are doing in their science class.

<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Get an ice cube that has been darkly colored with food coloring.</td>
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<tr>
<td>2</td>
<td>Use tongs to place the ice cube in a beaker containing warm water. Be sure to lower the ice cube slowly to keep the water as still as possible.</td>
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<tr>
<td>3</td>
<td>Observe the ice cube and water mixture for at least five minutes.</td>
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What are these students modeling?
   A. plate boundary    C. movement of tectonic plates
   B. continental drift    D. convection currents in the mantle

3. Veronica saw the landforms shown in the following pictures while on a trip.

Which of the following processes formed the landforms shown?
   A. the transport and deposition of sediment by ice
   B. the transport and deposition of sediment by water
   C. the transport and deposition of sediment by wind
   D. the transport and deposition of sediment by gravity

4. Earth is composed of three layers: the core, the mantle, and the crust. How are these three layers identified?
   A. by their plate tectonics    C. by their physical properties
   B. by their structural features    D. by their chemical composition

5. Earth’s core is composed of two separate layers: the inner core and the outer core. What is one difference between these two layers?
   A. One is iron and one is zinc.
   B. One is liquid and one is gas.
   C. One is solid and one is liquid.
   D. One is iron and one is nickel.
6. The following diagram shows the site of a sinkhole. Which landform was **most likely** present before the sinkhole formed?

A. canyon  
B. cavern  
C. pond  
D. valley

7. Earth’s physical layers correspond to Earth’s compositional layers. Which part of the mantle is also part of the lithosphere?

A. the fluid, hot part  
B. the rigid upper part  
C. the soft moving part  
D. the lower stationary part

8. The innermost physical layers of Earth are the inner core and outer core. Of which two metals are the inner and outer core mostly made?

A. lead and iron  
B. iron and nickel  
C. lead and mercury  
D. nickel and mercury

Use the diagram to answer questions 9 and 10.

9. What is the **largest** lake in Florida?

A. Lake Apopka  
B. Lake Istokpoga  
C. Lake Kissimmee  
D. Lake Okeechobee

10. The word “River” is often abbreviated as “R.” on the diagram above. Which Florida river flows into the Atlantic Ocean instead of the Gulf of Mexico?

A. the Chicola River  
B. the St. John’s River  
C. the Suwannee River  
D. the Caloosahatchee River

11. What is the name given to molten rocks that are erupted by a volcano?

A. Firestone  
B. Marble  
C. Slate  
D. Lava
12. What two letters represent the layers of the earth where the lithosphere is located?

A. A and B  
B. B and C  
C. C and D  
D. A and D

13. Which of the layers makes up most of Earth’s mass?

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

14. Earth can be divided into layers based on chemical composition. The three compositional layers are the core, the mantle, and the crust. Which of these answers describes the core?

A. the central part of Earth below the mantle  
B. the solid outer layer of Earth above the mantle  
C. the hot, convecting layer of rock beneath the crust  
D. the layer of Earth on which the tectonic plates move

15. What is the correct order (starting from the surface) of Earth’s layers?

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

16. The diagram shows the five physical layers of Earth. On your answer sheet, identify A-E and explain one characteristic of each.

17. Identify the letter representing the asthenosphere and describe what activity happens on the asthenosphere.

18. What are two types of evidence geologists use to learn about Earth’s interior?
19. Florida is susceptible to sinkholes. Using the information provided in the diagrams, explain why Florida is prone to sinkholes. If you need to, you may use your textbook. Be sure to state your evidence in your essay answer.

20. Why can we not predict when a sinkhole occurs?