Name _____ Date _____

Rock Layers and What They Tell Us: Fossil Clues by the Road

Directions: Read about the rock layers and look at the table. Then answer each question.

Clues in the Rock

Aria's class visited a hill that workers had cut through to build a road. In the cut, the class could see stripes of rock stacked like books in a pile. Each stripe is a **layer**.

Most layers like these formed from sand, mud, or other sediment that settled in flat sheets and slowly hardened into rock. New sediment settles on top of older sediment. So in layers that have not been flipped or moved, lower layers are usually older than the layers above them.

Some layers hold **fossils**, which are the remains or traces of living things from long ago. Fossils are clues about what a place was like. Seashell fossils suggest that a sea once covered the place. Fossil fern leaves suggest that it was once land where plants grew.

Rock layers and fossils that Aria's class recorded, from the top layer down

Layer (1 = top, 4 = bottom)	Kind of rock	Fossils found
1	Sandstone	None found
2	Limestone	Seashells and coral
3	Shale	Fern leaves
4	Sandstone	Dinosaur footprints

1. Use the word bank to finish the sentence about the ages of the layers.

Word bank
1 • 2 • 3 • 4

Layer _____ is probably the oldest, and Layer _____ is probably the youngest.

2. Which layer gives the best evidence that a sea once covered this place?

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

3. Layer 3 lies just below Layer 2. What change do these two layers suggest happened at this place over time?

A. It was land with plants the whole time.

B. It was probably a sea first, and later it became land with plants.

C. It was probably land with plants first, and later a sea covered it.

D. It was a sea the whole time.

4. Which of these could be a fossil?

A. A smooth rock with no trace of any living thing

B. A print of a fern leaf found in a layer of rock

C. A plastic toy dinosaur buried in a sandbox

D. The shell of a snail that died last month

5. The class found no fossils in Layer 1. What can they say about Layer 1 from this?

A. Layer 1 must be the oldest layer.

B. They found no fossil clues in it about what this place was like.

C. Layer 1 formed under a deep sea.

D. Nothing was alive anywhere on Earth when Layer 1 formed.

6. How did the seashells in Layer 2 most likely end up inside solid rock?

A. Rain washed them into the solid rock a few years ago.

B. Workers pressed them into the rock while building the road.

C. Strong wind blew them deep into the solid rock.

D. They were buried in sediment that slowly hardened into rock.

7. Why does the passage say lower layers are "usually" older, instead of "always" older?

A. New sediment usually settles underneath older layers.

B. Rock layers trade places with each other every few years.

C. Thicker layers are always older than thinner layers.

D. Layers can get flipped or moved, which can change their order.

8. What would happen if a flood left a new layer of mud on top of Layer 1, and over a long time the mud hardened into rock?

A. The new layer would be the youngest layer.

B. The new layer would be older than Layer 4.

C. Layer 1 would become the oldest layer.

D. The new layer would push Layer 4 up to the top.