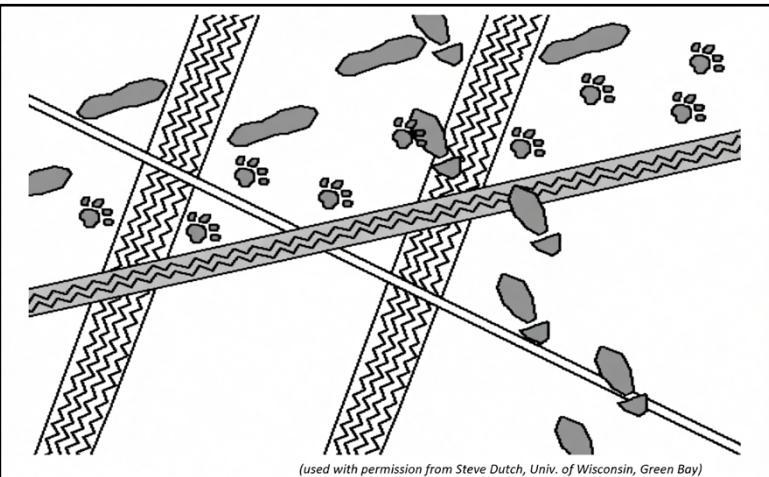


More Stories from Fossils

Engage

What To Do:

1. Study the graphic below.
2. Read the information and the clues.
3. Determine who the culprit is.



Information:

Someone took the last cookie in the cookie jar last night. The last person to leave the scene is the culprit.

Clues:

The Butler walks to work.
The Handyman rides a bike.
The Cook rides a motorcycle.
The Maid drives a car.
The Nephew has a seeing-eye dog.

Questions:

1. Who left first? _____
2. Why do you think so? _____
3. Who drove out last? _____
4. Why do you think so? _____
5. Who took the last cookie in the cookie jar? _____
6. Why do you think so? _____

Explore

Materials: Mason jar with lid, sand, soil, small rocks, scoops, colored pencils, scissors, tape

What To Do:

1. Use the colored pencils to color the dinosaurs and labels on the next page.
2. Take a scoop of sand and pour it into the Mason jar. Place the lid on the jar.
3. Cut out the 2 Triassic dinosaurs along with label.
4. Tape the label to one side of the jar along the line of sand.
5. Tape the dinosaurs on the other side of the jar along the line of sand.
6. Take a scoop of soil and pour it into the Mason jar. Place the lid on the jar.
7. Cut out the 2 Jurassic dinosaurs along with the label.
8. Tape the label on the outside of the jar along the line of soil.
9. Tape the dinosaurs on the other side of the jar along the line of soil.
10. Take a scoop of rocks and pour them into the Mason jar. Place the lid on the jar.
11. Cut out the 2 Cretaceous dinosaurs along with the label.
12. Tape the label on the outside of the jar along the line of rocks.
13. Tape the dinosaurs on the other side of the jar along the line of rocks.
14. Place the lid on the jar. Tape the Present Day label on the top of the jar lid.

Questions:

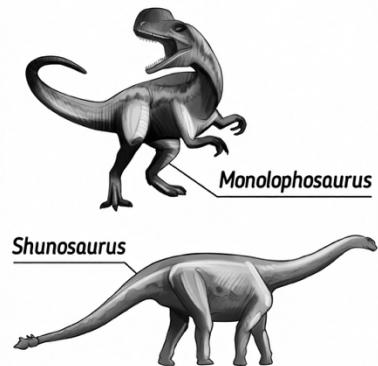
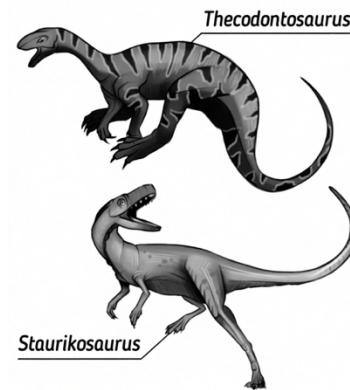
1. What did you put into the jar first? _____
2. Does this make the sand the oldest or youngest layer?

3. Which dinosaurs did you tape on first? _____
4. Does this make these dinosaurs the oldest or the youngest dinosaurs?

5. What did you put into the jar last?

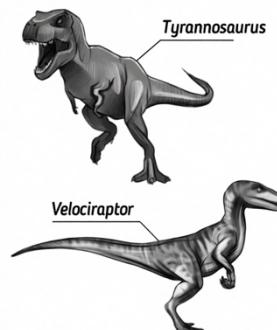
6. Does this make the rocks the oldest or youngest layer?

TRIASSIC PERIOD
252-201 MYA



JURASSIC PERIOD
201-145 MYA

CRETACEOUS PERIOD
145-66 MYA



MODERN DAY
66 MYA - PRESENT

Explain

GEOLOGIC TIME

FOSSIL STORIES

STRATA

LAW OF SUPERPOSITION

Elaborate

What To Do:

1. Watch the video “Reading Earth’s Timeline: Fossils and Strata in Rock” found at <https://www.youtube.com/watch?v=4YrJp4gnUrk>
2. Use the Word Bank to help you fill in the blanks below.

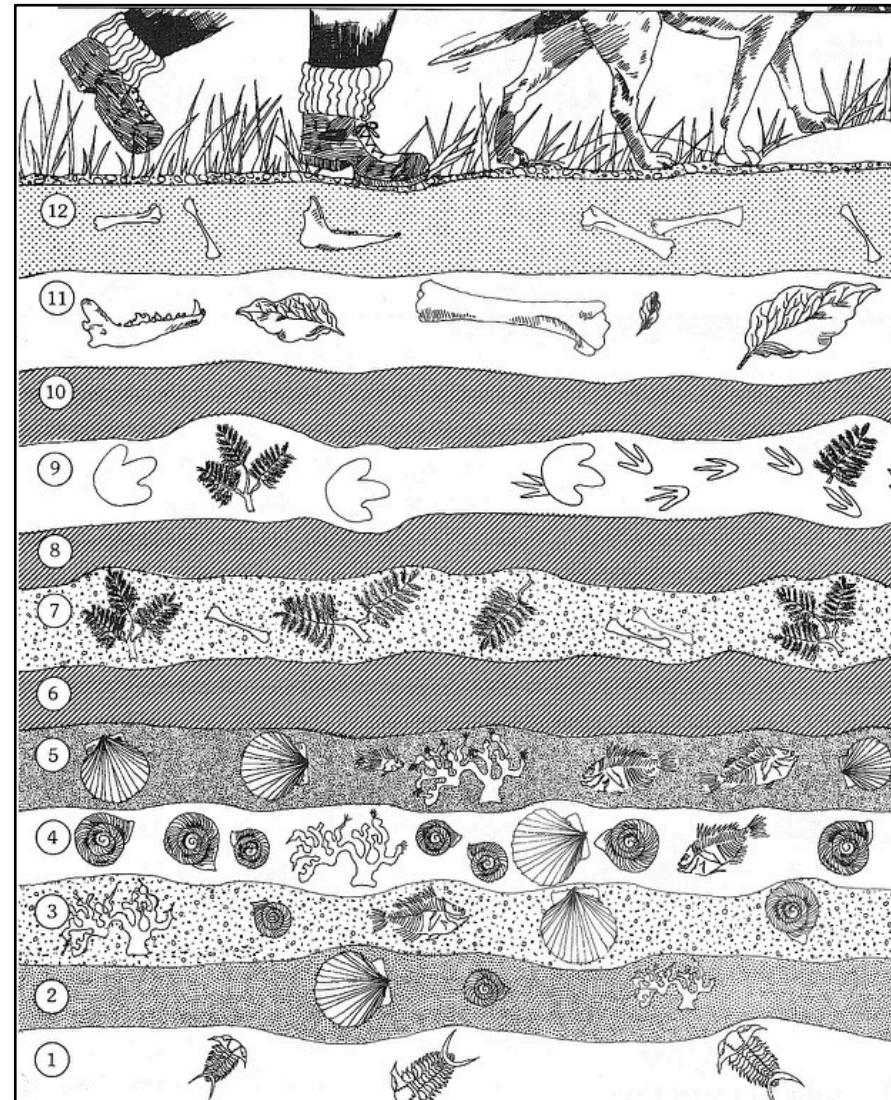
WORD BANK

rock layers	youngest	when	decay
strata changed	fossils	water	history
life	order	story	oldest

1. Fossils and _____ layers are like Earth's history books giving us clues about life and environments from millions of years ago.
2. Rock layers or _____ form when sediments like sand, mud and plant or animal remains settle in water and over time these _____ compress into rock.
3. According to the law of superposition the _____ layer is at the bottom and the _____ layer is at the top.
4. _____ are preserved remains or traces of ancient plants and animals and they form when organisms are quickly buried by sediment which protects them from _____.
5. For example, finding a sea creature fossil in a rock layer tells us the area was once under _____.
6. By studying these layers and the fossils inside them scientists can figure out the _____ of events in Earth's history.
7. Fossils and rock layers work together to give us a complete picture of Earth's _____.
8. You can see each fossil reveals what kind of _____ existed while the rock layers tell us _____ and where those organisms lived together.
9. They help scientists understand how the planet has _____ over millions of years.
10. The next time you see a rock or a fossil think about the _____ it tells.

What To Do:

1. Observe the layers of the Earth beneath the walker and dog's feet.
2. Answer the questions on the following page.



Questions:

1. What types of organisms left fossils in the rock layers 1-5?

2. What does this tell you about the environment at this location during that time?

3. Which of these 5 layers of rock were laid down first?

4. Does that make it the oldest or the youngest layer?

5. Which of these 5 layers of rock were laid down last?

6. Does that make it the oldest or the youngest layer?

7. What types of organisms left fossils in the rock layers 6-10?

8. What does this tell you about the environment at this location during that time?

9. What natural event may have happened to cause layers 6, 8, and 10 to have no fossils?

10. What types of organisms left fossils in the rock layers 11 and 12?

11. What does this tell you about the environment at this location during that time?

12. According to the Law of Superposition which rock layer was laid down first?

13. Explain your reasoning.

14. Was rock layer 11 laid down before or after rock layer 6?

15. Explain your reasoning.

Evaluate

Name _____ period _____

EXIT TICKET

More Stories from Fossils

1. Another word for rock layers is –
 - A. fossil
 - B. strata
 - C. organism
 - D. superposition
2. Preserved remains of plants and animals are called –
 - A. fossils
 - B. strata
 - C. organisms
 - D. superpositions
3. The law that says the oldest layer of rock that is at the bottom is called –
 - A. The Law of Fossils
 - B. The Law of Strata
 - C. The Law of Organisms
 - D. The Law of Superposition
4. Fossil evidence and the Law of Superposition supports that the Earth –
 - A. has never changed
 - B. has changed once or twice
 - C. has changed many times
 - D. changes once a year.
5. The youngest layer of rock is at the _____ and the oldest layer of rocks is at the _____.
 - A. top, middle
 - B. middle, top
 - C. bottom, middle
 - D. top, bottom