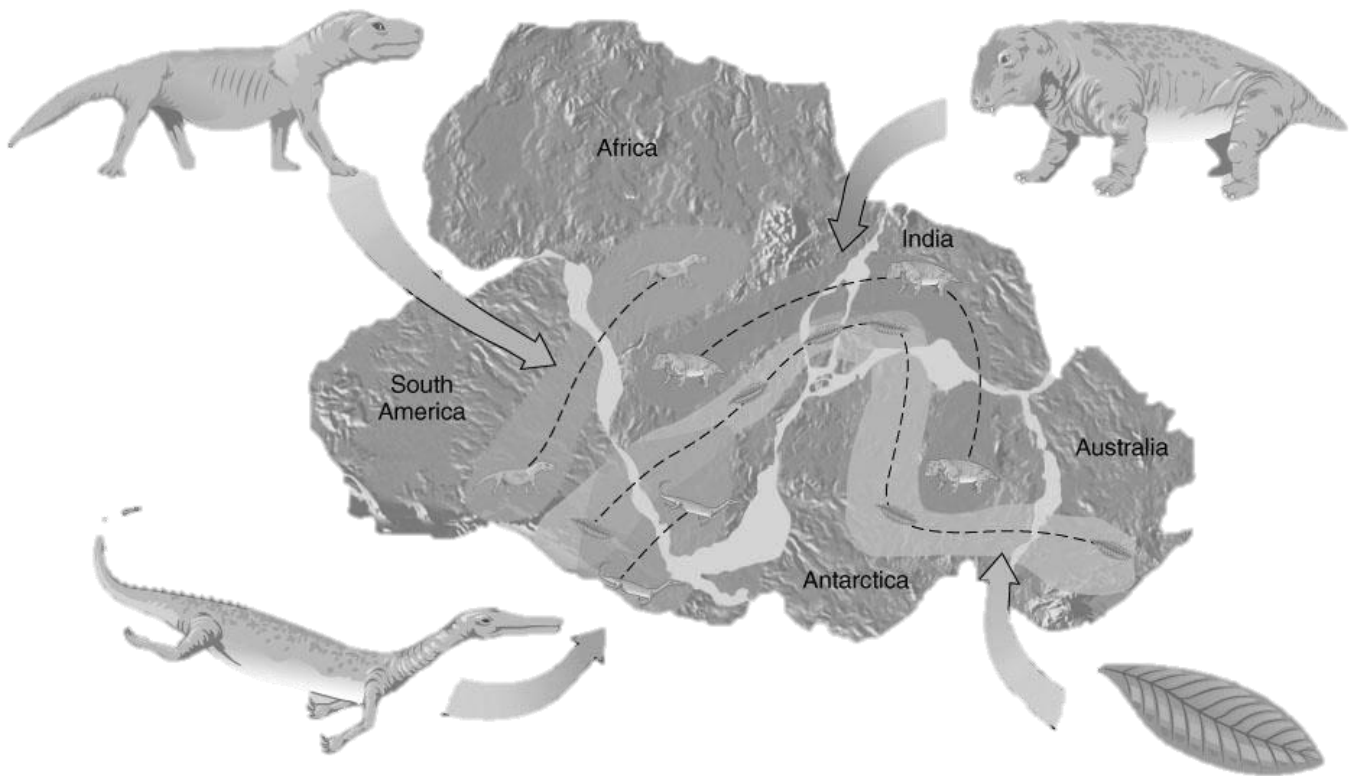


Chapter 8, Section 6

Fossils



Section 6 Question: How can we use fossils to interpret geologic history?

What Do you See?
(Various samples)

What Do You Think?

- Where are fossils typically found?

What Do You Think Now?

Focus Question A: How are fossils formed?

Create: Create your own fossil
Draw a picture of your organism.

Observe: Why did the rock break easily along the plane where the fossil is located?

How could you use your fossils to reconstruct the original organism that created it?

Predict: In what types of environments would you expect most fossils to form?

Investigate: ESRT page 9.

Choose one of the fossils listed at the bottom of pages 8 and 9. To what species does your fossil belong? Use the fossil guide book and ESRT to describe the following:

- Eon, Era, Period, and Epoch it lived:

- Environment it lived in:

- Distinguishing features:

- Important Geologic Events that were occurring in New York:

Explain:

Focus Question B: What fossils can we find in NYS?

Investigate: Use the E.S.R.T. to complete the table below.

Fossil	Organism Name	Organism Group	Eon	Era	Period
					
					
					
					
					
					
					
					
					
					

Evaluate:

Compare and contrast our youngest fossils with our oldest fossils?

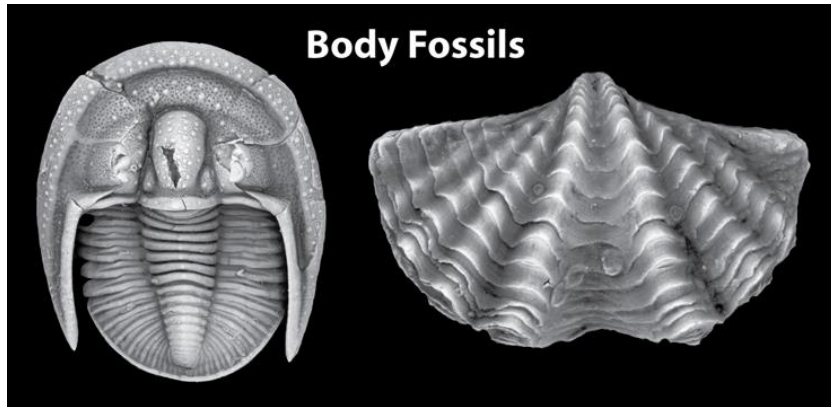
Explain:

RETURN TO WDYTN

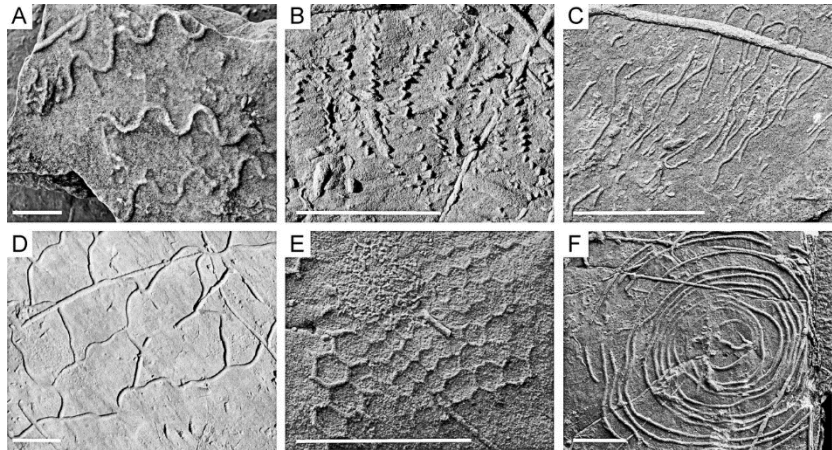
DIGGING DEEPER

Types of Fossils

- A fossil is any evidence of a past plant or animal contained in a sediment or rock
- Body fossils are the imprints of organic material that has been preserved in the geologic record
- Trace fossils result from the activities of the fossils when they were alive
 - Tracks
 - Trails
 - Burrows
 - Tube
 - Boring
 - Tunnel
- Bones, teeth, shells, and other hard body parts are more easily preserved than soft body parts
- An index fossil can be used to date rocks. They must have
 - A wide distribution
 - Narrow age range

**Body Fossils**

What information can we learn from body fossils?



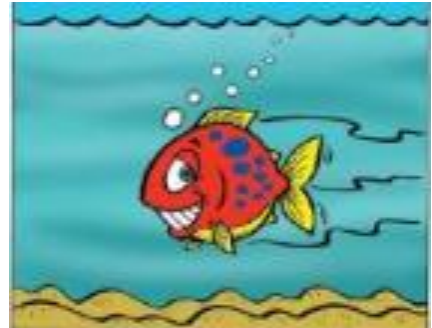
What information can we learn from trace fossils?

Why is an index fossil useful to a geologist?

Fossilization

- Specific conditions must be met in order for fossilization to occur
 - Must be buried quickly
 - Parts of the organism must survive burial
 - Stop or slow decay of organism
 - Replacement of organic material with mineral or rock material
 - Discovery by paleontologist
- Due to the required conditions, fossilization does not occur everywhere all of the time
- The fossil record has been used to divide up Earth's history into specific blocks of time based on the abundant species present or large extinction events
- Fossils are found dominantly in sedimentary rocks

Describe the events that led to the fossilization of Fred.



What is the New York State Fossil?

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Chapter 8, Section 6 E.B.C.
The Fossil Record

Name: _____

Period: _____

Question (2)			
Claim 1 (2)			
A. Supporting Evidence (3)		B. Supporting Evidence (3)	
Claim 2 (2)			
A. Supporting Evidence (3)		B. Supporting Evidence (3)	
Analysis (6)			
	Claim <i>A statement or conclusion that answers the original question/problem.</i>	Evidence <i>Scientific data that supports the claim. The data needs to be appropriate and sufficient to support the claim.</i>	Analysis <i>A justification that connects the evidence to the claims. It shows why the data counts as evidence by using appropriate and sufficient scientific principles and vocabulary.</i>
0	Does not make a claim, or makes an inaccurate claim.	Does not provide evidence, or only provides inaccurate or vague evidence.	Does not provide an analysis, or only provides an irrelevant analysis.
1	Makes an accurate but vague or incomplete claim.	Provides vague evidence and does not include specific data.	Repeats evidence and links it to claim, but does not include specific scientific principles.
2	Makes accurate and complete claim.	Provides correct evidence but does not include specific data.	Connects all evidence to the claims using scientific principles or vocabulary but not both.
3		Provides correct evidence and includes specific data.	Connects all evidence to both claims using scientific principles and vocabulary.

CHECKING UP: Page 940, 1 through 5 (2 points each)

1.

2.

3.

4.

5.

Why would you expect that organisms in ponds, lakes, or oceans have a greater chance of becoming part of the fossil record than organisms living on land? (5 points)