

Name: _____

Date: _____

Life Science

Period: _____

Section B1.1: *Earth has been home to living things for about 3.8 billion years*

As we read pages B9-15, complete the following outline.

Fossils provide evidence of earlier life.

1. The history of life on Earth began _____ billion years ago.
2. In the beginning, all living things lived in the _____.
3. What we know about life's history is based on _____ of evidence.
4. _____ are valuable evidence because they are the remains of organisms preserved in the Earth.

Types of fossils

1. _____ of once-living things
2. _____ of once-living things
3. Hard body parts such as _____
4. _____ replace the remains of organisms or parts of organisms.

Finding the age of fossils

1. Relative dating:
 - a. One _____ is compared with another _____
 - b. Relative ages tells you if a fossil formed _____ or _____ another fossil
 - c. _____ fossils are found in the top layers of rock, while _____ fossils are found in the lower layers.

2. Absolute dating:
 - a. Tells you when the fossil _____.
 - b. Measure of _____ - the older the fossil, the less radioactive it is.

Assembling the fossil record

1. Fossil record: _____

2. Enables scientists to identify the _____ in which different species lived and died.

More complex organisms developed over time.

1. The first organisms were _____.
2. Most organisms today are _____.

Unicellular organisms

1. Organisms made of _____
2. Some are responsible for the _____ that makes up our atmosphere.
3. The early atmosphere did not have as much _____ as it does now.
4. As the atmosphere changed, _____ changed.
5. Different types developed over _____.

Multicellular organisms

1. Appeared approximately _____ years ago.
2. Living things made of _____.
3. Individual cells perform _____
4. Earliest examples were _____.
5. Earliest animals were _____.

Life on land

1. The first multicellular organisms moved out of water
_____ years ago.
2. For survival, land organisms needed special structures to help them obtain _____.
 - a. Plants developed _____
 - b. Fungi absorbed water from _____

Earth's history includes mass extinction.

1. Extinction = _____
2. Information about extinct species is provided by the

3. Two major mass extinctions:
 - a. Permian Extinction
 - i. _____ years ago
 - ii. _____ percent of the species living in the ocean became extinct
 - iii. Possible explanation for the catastrophe:

 - b. Cretaceous Extinction
 - i. _____ years ago
 - ii. _____ go extinct
 - iii. Possible explanation for the catastrophe:

4. Extinctions are followed by appearance of _____
