

# The History of Life

## Section 14.1 Fossil Evidence of Change

### Main Idea

### Details

**Skim** Section 1 of the chapter. Write two questions that come to mind from reading the headings and the illustration captions.

1. \_\_\_\_\_

2. \_\_\_\_\_

### Review Vocabulary

Use your book or dictionary to define extinction.

extinction

### New Vocabulary

Use the terms in the left column to complete the paragraph below.

Cambrian explosion

era

fossil

geologic time scale

half-life

K-T boundary

law of superposition

paleontologist

period

plate tectonics

radiometric dating

relative dating

Scientists measure Earth's geological and biological events using the \_\_\_\_\_, which is divided into \_\_\_\_\_ and \_\_\_\_\_. The \_\_\_\_\_ is the name of a period of rapid change during which the ancestors of most animal groups emerged. A layer of soot found between rock layers worldwide, known as the \_\_\_\_\_, might indicate that a large meteorite collided with Earth.

The theory of \_\_\_\_\_ describes Earth's surface as large plates that move over Earth's thick, liquid interior. These plates are made up of various types of rocks. \_\_\_\_\_ are scientists who study \_\_\_\_\_. They determine the relative age of rocks using \_\_\_\_\_, which compares the sequence of rock layers. The \_\_\_\_\_ states that younger rock layers are deposited on top of older rock layers. Another method of determining the age of rocks is \_\_\_\_\_, which measures the decay of radioactive isotopes. The rate of decay can be measured using \_\_\_\_\_, the amount of time required for half of a radioactive isotope to decay.

# The History of Life

## Section 14.2 The Origin of Life

### Main Idea

### Details

**Scan** Section 2 of the chapter. Use the checklist as a guide.

- ☐ Read all section titles.
- ☐ Read all boldfaced words.
- ☐ Look at all pictures and read the captions.
- ☐ Think about what you already know about the history of life.

*Write three facts you discovered about the origin of life.*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Review Vocabulary

Use your book or dictionary to define amino acid. Use the term in a sentence to show its scientific meaning.

*amino acid*

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### New Vocabulary

Use your book or dictionary to define each term.

*endosymbiont theory*

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*spontaneous generation*

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*theory of biogenesis*

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### Academic Vocabulary

Define mechanism to show its scientific meaning.

*mechanism*

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## Section 14.2 The Origin of Life (continued)

**Main Idea** \_\_\_\_\_

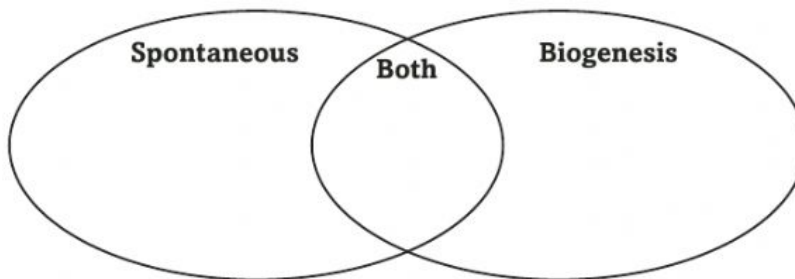
**Details** \_\_\_\_\_

### Origins: Early Ideas

I found this information  
on page \_\_\_\_\_.

**Create** a cartoon that illustrates how Redi's experiment was used to disprove spontaneous generation.

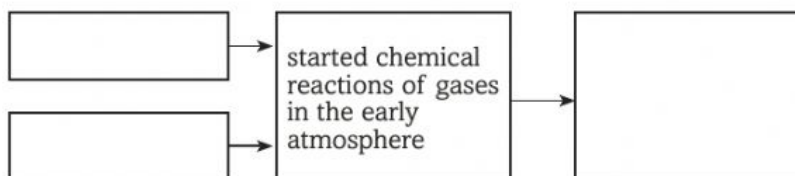
**Compare** spontaneous generation and biogenesis.



### Origins: Modern Ideas

I found this information  
on page \_\_\_\_\_.

**Model** Oparin's primordial soup hypothesis for the formation of simple organic molecules by filling in the graphic organizer below.



**Identify** four requirements for life using the concept map below.

