

Name \_\_\_\_\_

Date \_\_\_\_\_

Class \_\_\_\_\_

## The Origin of Life

In your textbook, read about origins: the early ideas.

Use each of the terms below just once to complete the passage.

microorganisms	vital force	Louis Pasteur	biogenesis
nonliving matter	S-shaped	disproved	Francesco Redi
organisms	broth	microscope	spontaneous generation
spontaneously	air		

Early scientists believed that life arose from **(1)** \_\_\_\_\_ through a process they called **(2)** \_\_\_\_\_. In 1668, the Italian physician **(3)** \_\_\_\_\_ conducted an experiment with flies that **(4)** \_\_\_\_\_ this idea. At about the same time, biologists began to use an important new research tool, the **(5)** \_\_\_\_\_. They soon discovered the vast world of **(6)** \_\_\_\_\_. The number and diversity of these organisms was so great that scientists were led to believe once again that these organisms must have arisen **(7)** \_\_\_\_\_. By the mid-1800s, however, **(8)** \_\_\_\_\_ was able to disprove this hypothesis once and for all. He set up an experiment, using flasks with unique **(9)** \_\_\_\_\_ necks. These flasks allowed **(10)** \_\_\_\_\_, but no organisms, to come into contact with a broth containing nutrients. If some **(11)** \_\_\_\_\_ existed, as had been suggested, it would be able to get into the **(12)** \_\_\_\_\_ through the open neck of the flask. His experiment proved that organisms arise only from other **(13)** \_\_\_\_\_. This idea, called **(14)** \_\_\_\_\_, is one of the cornerstones of biology today.

Determine if the statement is true. If it is not, rewrite the italicized part to make it true.

15. Biogenesis *explains* how life began on Earth.

\_\_\_\_\_

16. For life to begin, simple *inorganic* molecules had to be formed and then organized into complex molecules.

\_\_\_\_\_

17. Several billion years ago, Earth's atmosphere had no free *methane*.

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