

**The Solar System** ▪ *Guided Reading and Study*

## Is There Life Beyond Earth?

*This section describes what conditions living things need to exist on Earth and explains why life might exist on Mars and Europa.*

### Use Target Reading Skills

*Complete the first column in the chart by previewing the red headings in your textbook and asking a what, how, or where question for each. As you read the section, complete the second column with the answers. The first question is done for you.*

Question	Answer
What are the "Goldilocks" conditions?	a.
b.	c.

### Introduction

- Life other than that on Earth would be called

\_\_\_\_\_

### Life on Earth

- What are the three "Goldilocks conditions" on Earth that life as we know it must have to exist?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

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**Is There Life Beyond Earth?** *(continued)*

3. Where has life been found on Earth that suggests life forms may not always need the “Goldilocks conditions”?

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**Life Elsewhere in the Solar System?**

4. Why is Mars the most obvious place to look for living things like those on Earth?

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5. Why do scientists hypothesize that Mars may once have had the conditions needed for life to exist?

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6. A meteorite from Mars found in Antarctica in 1996 shows tiny shapes that look like \_\_\_\_\_.

7. Is the following sentence true or false? All scientists agree that the meteorite from Mars shows that life once existed on Mars.

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8. Which spacecraft tested the soil of Mars for signs of life?

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9. Is the following sentence true or false? Life has been discovered in Martian soil. \_\_\_\_\_

10. What suggests that there might be liquid water on Europa?

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11. Is the following sentence true or false? If there is liquid water on Europa, there might also be life. \_\_\_\_\_

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12. Complete the table that compares and contrasts what scientists know and what they hypothesize about life on Mars and on Europa.

	<b>Mars</b>	<b>Europa</b>
<b>What Scientists Know So Far</b>	There are surface features that appear to have been formed by liquid water.	It has a smooth, ice crust with cracks.
<b>What Scientists Hypothesize</b>	a.	b.

c. According to these hypotheses, which location is more likely to have life now?

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d. Based on this table, write a definition of a hypothesis in your own words.

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