

The Solar System ▪ *Reading/Notetaking Guide***Is There Life Beyond Earth?** (pp. 576–579)

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

As you read, complete the outline about life beyond Earth. Use the red headings for the main ideas and the blue headings for subtopics. Include details for each subtopic.

Is There Life Beyond Earth?	
I. Life onEarth	
A. The "Goldilocks" Conditions	
1.	
2.	
B.	
1.	
2.	
II.	
A.	
1.	
2.	
B.	
1.	
2.	

Introduction

1. Life other than that on Earth would be called _____.

Life on Earth (p. 577)

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

Life Elsewhere in the Solar System? (pp. 578–579)

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

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

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.

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

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?

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.

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

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

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