

Activity

# Internet Activity

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## Life on Mars?

Use an Internet search engine to find information on the possibility of life on Mars.

1. What search engine did you use? \_\_\_\_\_

2. What keywords did you use to search for this Web site? \_\_\_\_\_

\_\_\_\_\_

3. List the URLs for two Web sites about this topic. \_\_\_\_\_

\_\_\_\_\_

4. What is the source for the information on these Web sites? \_\_\_\_\_

\_\_\_\_\_

5. List any universities or professional organizations with which these Web sites are affiliated. \_\_\_\_\_

\_\_\_\_\_

Use the Web sites you listed in question 3 to answer the questions that follow.

6. What evidence supports the theory that life existed on Mars in the past?

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\_\_\_\_\_

7. Are conditions on Mars currently favorable for life-forms?

Explain your answer. \_\_\_\_\_

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\_\_\_\_\_

8. Does most of today's scientific community believe that life presently exists on Mars? Explain your answer. \_\_\_\_\_

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9. **Going Further** Conduct additional research on the evidence for life on Mars. Share your findings with the class in an oral report.

## Internet Activity

### LIFE ON MARS?

1. Answers may vary. Sample answer: Google
2. Answers may vary. Sample answer: Mars, life on Mars
3. Answers may vary. Students should list URLs of sites that are likely to present reliable information, such as educational or government sites.
4. Answers may vary.
5. Answers may vary.
6. Answers may vary. Sample answer: It is possible that life did exist on Mars at one time—specifically more than 3.6 billion years ago, according to NASA. Possible microscopic fossils of primitive, bacteria-like, worm-shaped organisms have been identified.
7. Answers may vary. Sample answer: Water does exist in some form — frost, vapor, streams or ice under the surface. However, the temperatures and atmosphere are very different from those that support life on Earth.
8. Answers may vary. Sample answer: At the present time, most of the scientific community does not believe that enough evidence exists, or that conditions are favorable enough, for life to survive on Mars.
9. Answers may vary. Students should prepare an oral report to present to the class.

### GRAVITATIONAL MICROLENSING

1. Answers may vary. Sample answer: MSN Search
2. Answers may vary. Sample answer: gravitational microlensing
3. Answers may vary. Students should list URLs of sites that are likely to present reliable information, such as educational or government sites.
4. Answers may vary.
5. Answers may vary.
6. Answers may vary. Sample answer: Einstein first proposed the technique to identify planets that orbit distant stars.
7. Answers may vary. Sample answer: When a small, relatively close star passes between a more distant star

- and Earth, the light from the distant star bends and focuses. If the smaller object passes precisely in front of the larger one, the image created is a circular ring called an Einstein Ring.
8. Answers may vary. Sample answer: Scientists may use the technique to find and study planets in distant solar systems and to search for Massive Compact Halo Objects (MACHOs).
  9. Answers may vary. Students should prepare a report and diagram to present to the class.