

# Mars

By Sharon Fabian

<sup>1</sup> There is a story called *The War of the Worlds*. It is about an invasion of aliens from Mars. Back before the time of TV, *The War of the Worlds* was presented as a radio play. As people everywhere turned on their radios and heard what sounded like a news broadcast about a Martian invasion, they began to panic. For a long time, people had wondered whether there was life on Mars, and now suddenly it seemed that, not only were there creatures living on Mars, but the creatures were coming to attack us here on Earth.



<sup>2</sup> Well, that was only a story, but people do have good reasons to wonder whether there might have been life forms on Mars at one time. Mars is next to the Earth in the solar system, and is probably more like Earth than any other planet. It has some of the same chemicals that Earth has on its surface and in its atmosphere. It has some water vapor in its air and ice caps at the poles. Mars gets lots of sunlight, and it has a solid surface to walk on.

<sup>3</sup> However, in other ways, Mars is very different from our planet. Its atmosphere is very thin; it gets so much solar radiation that any creatures on Mars would get an instant sunburn. It is a dry and dusty planet, much of it coated with red, rusty Martian dust. The average surface temperature on Mars is about -60 degrees Celsius, way below freezing. The biggest difference of all is that Mars has no liquid water on its surface.

<sup>4</sup> Scientists believe that water may be one of the best signs of life on another planet, and so Mars explorations have focused on finding out whether there is, or was, any water on Mars's surface. In 1971, a spacecraft named *Mariner 9* orbited Mars and took pictures that seemed to show that Mars had valleys and channels on its surface. Perhaps they were carved out by water a long time ago. In 1975, the Viking landers, *Viking I* and *Viking II*, searched for any signs of life on Mars's surface. Their results were inconclusive; they weren't able to prove whether or not there had ever been life on Mars.

<sup>5</sup> With no positive results from the Viking landers, many scientists began to lean towards the belief that there was no life on Mars. One of their main arguments was that, with Mars's thin atmosphere, any water on its surface would probably begin to boil away immediately. Other scientists thought that water might freeze before it boiled away in Mars's strange atmosphere. There were always two sides to the question of whether there was life on Mars.

<sup>6</sup> An interesting piece of the Mars puzzle was found in a place you would probably never expect — Antarctica. A meteorite was found in Antarctica that was believed to have come from Mars. This meteorite had what looked like really tiny fossils. Could they be the fossils of some ancient microscopic forms of Martian life? No one knows for sure. However, the Antarctica meteorite does bring up an important point about life on Mars. If it turns out that there was life on Mars at one time, it is much more likely that it was some type of microscopic creature, something like bacteria or a virus, rather than a movie-style space alien.

<sup>7</sup> In 2004, a new Mars exploration began. NASA launched two rovers, *Spirit* and *Opportunity*, into orbit around Mars, hoping that at least one would be able to land successfully on Mars's surface. If everything went well, one or both rovers might be able to travel around the Martian surface sending back data for up to three months. The scientists were overjoyed when both rovers landed safely, bounced around on their giant airbags, and then began doing what they were sent there to do — roving around the surface of Mars.

<sup>8</sup> The rovers sent back information about the surface and the atmosphere of Mars. They sent back information about the chemicals that make up the red planet. They also sent back pictures and data that showed just what many scientists had been waiting to see. One of the pictures showed a pattern of ridges in an outcrop of rocks. The pattern was the one formed by flowing water. Scientists from NASA announced that *Spirit* and *Opportunity* had discovered proof that Mars once had water.

<sup>9</sup> That was just the beginning of the contributions made by the two sturdy little Mars rovers. Their mission has been extended far beyond the original plan. Instead of a few months, they have already spent years exploring Mars. Communication with *Spirit* was lost in 2010, but *Opportunity* is still active today. In the meantime, people here on Earth still wonder: Could there really be life on Mars?

## Mars

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|---|--|
| <p>1. This article is mainly about ____.</p> <p><input type="radio"/> A The Viking spacecrafts</p> <p><input type="radio"/> B The chemicals in Mars's soil</p> <p><input type="radio"/> C The search for life on Mars</p> <p><input type="radio"/> D The solar system</p>                           | <p>2. <i>Spirit</i> is ____.</p> <p><input type="radio"/> A A booster rocket</p> <p><input type="radio"/> B An astronaut</p> <p><input type="radio"/> C An orbiting spacecraft</p> <p><input type="radio"/> D A rover</p>  |
| <p>3. Mars is ____.</p> <p><input type="radio"/> A A giant planet like Jupiter</p> <p><input type="radio"/> B A planet with a solid surface like Earth</p> <p><input type="radio"/> C Covered by oceans</p> <p><input type="radio"/> D The smallest planet in our solar system</p>                  | <p>4. Which happened first?</p> <p><input type="radio"/> A <i>Mariner 9</i> orbited Mars.</p> <p><input type="radio"/> B <i>The War of the Worlds</i> aired on radio.</p> <p><input type="radio"/> C <i>Viking I</i> landed on Mars.</p> <p><input type="radio"/> D The rover <i>Spirit</i> landed on Mars.</p>                |
| <p>5. The word "inconclusive" means ____.</p> <p><input type="radio"/> A Negative</p> <p><input type="radio"/> B Positive</p> <p><input type="radio"/> C False</p> <p><input type="radio"/> D Giving no definite proof</p>  | <p>6. <i>Spirit</i> and <i>Opportunity</i> ____.</p> <p><input type="radio"/> A Never landed on Mars</p> <p><input type="radio"/> B Crashed on Mars and were destroyed</p> <p><input type="radio"/> C Operated on Mars for three months</p> <p><input type="radio"/> D Have operated on Mars much longer than was expected</p> |
| <p>7. If there was evidence that Mars had never had any ____, then we might assume that Mars never had any life forms as we know them.</p> <p><input type="radio"/> A Water</p> <p><input type="radio"/> B Trees</p> <p><input type="radio"/> C Clouds</p> <p><input type="radio"/> D Volcanoes</p> |  |

