

STUDENT'S NAME .....

**•READ THE TEXT CAREFULLY, CHECK THE VOCABULARY AND THEN DO THE ACTIVITIES.**

## MARS, THE RED PLANET.

It is easy to forget that Earth is not the only planet in the solar system. Seven (or eight if you include Pluto) other planets move around the sun just like ours. Of those planets, none of them are closer or more attractive to the imagination than Mars.

The Red Planet, as Mars is often called, is the fourth planet from the sun (Earth is the third). In a lot of ways, Mars looks a lot like our home, though instead of<sub>1</sub> blue oceans and green land, Mars is covered by an ever present red tint. This is due to a mineral called iron oxide that is very common on the planet's surface.



Mars has an atmosphere, but it is about 100 times thinner than Earth's atmosphere and it has very little oxygen. The atmosphere on Mars is mainly made up of carbon dioxide. An astronaut on Mars would not be able to breathe<sub>2</sub> the Martian air and would need a spacesuit with oxygen to walk or work outdoors.

When you look past the surface differences, these two planets, Mars and Earth, are alike<sub>3</sub> in a lot of ways. Here are some examples.

- **Polar Ice Caps** – Mars has both North and South polar ice caps, much like Earth. Also like Earth, both ice caps are made mostly of frozen water. With so much water frozen in the ice caps of Mars, some scientists think that life could have once existed there.
- **Length of a Year** – Mars is not much farther from the Sun than Earth. As a result, a typical year on Mars is 1 year and 320 days.
- **Length of a Day** – While a year on Mars might be almost twice as long as a year on Earth, the length of a day there is almost identical. A Martian day is 24 hours and 39 minutes long, less than an hour longer than a day on Earth.
- **Seasons** – Mars has seasons like Earth too. These seasons are much longer than Earth seasons because Mars is so much farther from the sun. And don't get your swim suits out just yet – the average high during a Martian summer day is -5 degrees °C, not exactly beach weather.

Mars and Earth are similar in so many ways that it's almost hard to believe we haven't found anything alive there. But, don't forget that there are many differences too. Without these differences, Mars wouldn't be such an interesting planet to study.

A lot of planets are bigger than Earth. For example, 318 Earths could fit inside of Jupiter. Mars is not quite so big. In fact, Mars is one of only two planets in the solar system to be significantly smaller than Earth. If you looked at the two planets side by side, Earth would be a basketball while Mars is a tennis ball.



But, just because Mars is smaller doesn't mean it is without **landmarks**<sup>4</sup>. The surface of Mars is filled with exciting locations.



On Mars there is the largest mountain in the solar system, *Olympus Mons*, at more than 25 kilometers high (that's three times higher than Mount Everest). It is so big that astronomers could see it through telescopes in the 19th century, almost 200 years ago!



*Valles Marineris* is the largest canyon in the solar system, stretching 4,000 kilometers across the planet's surface. If you look at a picture of Mars taken from a telescope, you will see the giant **gash**<sup>5</sup> that is Valles Marineris.

The red planet has interested scientists of all times. At first, the only way modern explorers could study Mars was by observing through telescopes. Then, as technology advanced, the first satellites were sent to take closer pictures of the planet. Nowadays, they have even sent **spacecraft**<sup>6</sup> to land on Mars surface and to take images and samples of Martian material.



Mars is an incredible planet. With mountains, craters and caverns like Earth and a rich history, we will be learning more about the Red Planet for centuries to come.

## VOCABULARY

1. INSTEAD OF – in place of
2. BREATHE – to respire, take oxygen in and carbon dioxide out.
3. ALIKE – in the same or similar manner
4. LANDMARK- a prominent object or feature in the landscape
5. GASH – a long deep cut
6. SPACECRAFT – a vehicle designed to orbit the earth or travel to the space

## **•COMPREHENSION ACTIVITIES**

### **1. PUT ONE OF THE FOLLOWING TITLES TO EACH PART OF THE TEXT (5 marks)**

EXPLORATION.

HOW BIG IS MARS?

IS MARS SIMILAR TO OUR PLANET?

THE SURFACE OF MARS.

MARS AMAZING GEOGRAPHICAL FEATURES.

### **2. ANSWER THESE QUESTIONS ABOUT THE TEXT, USING YOUR OWN WORDS . (4 marks)**

•Why are the Earth and Mars different in colour? Explain your answer.

•Is it necessary to wear a spacesuit if we want to visit Mars? Why?

### **3. ACCORDING TO THE TEXT, ARE THE FOLLOWING SENTENCES TRUE OR FALSE? (6 marks)**

- Mars is as big as the Earth. \_\_\_\_\_
- A year on Mars is shorter than a year on Earth \_\_\_\_\_
- Mars is an attractive planet for exploration because its similarities to Earth \_\_\_\_\_
- Nowadays, we can find water on Mars in form of ice. \_\_\_\_\_
- Some spacecraft missions have landed on the red planet. \_\_\_\_\_
- Mars' atmosphere could protect us from the sun radiation. \_\_\_\_\_

**4. ANSWER TO THE FOLLOWING QUESTIONS BY PUTTING A TICK TO THE RIGHT BOX. (4 marks)**

a) What is the most common element in Mars' atmosphere?

- Carbon Dioxide
- Iron Oxide
- Oxygen

b) A day on Mars is...

- much longer than on Earth
- approximately the same as on Earth
- really short.

c) The size of Mars is ...

- similar to a basketball.
- smaller than the Earth.
- 318 times Jupiter.

d) Some of Mars geographical features are so impressive ...

- specially at night.
- that they can be seen from the Earth only by using a telescope.
- that we need a satellite to picture them.

**5. IN THE TEXT, SEVERAL JOBS OR PROFESSIONS RELATED WITH SPACE ARE MENTIONED (AND UNDERLINED) MATCH THESE JOBS FROM THE TEXT, WITH ITS CORRESPONDING DEFINITION. (4 marks)**

- |               |  |       |
|---------------|--|-------|
| a) ASTRONAUT  | A scientist who studies astronomy.                               | _____ |
| b) SCIENTIST  | A person trained for travelling in space                         | _____ |
| c) EXPLORER   | A person who studies or practises any of the sciences.           | _____ |
| d) ASTRONOMER | A person who travels to unknown regions for scientific purposes. | _____ |

**6. WRITE 3 DIFFERENCES BETWEEN MARS AND THE EARTH (3 marks)**

-  
-  
-



## •WRITING ACTIVITY: “My imaginary planet” (20 marks)

First, close your eyes and imagine your own imaginary planet. It has to be very different from Mars and the Earth. This planet looks interesting, mysterious and strange. Now, you are going to describe it. Before writing, think about the following questions:

What is the name of your planet? / What does it look like? / What things can or can't you do on your planet? How is life different on your planet? /How do you feel in your planet? /Tell people why they should visit your planet. / You can also include a drawing to help you.

! Remember you will be marked for how you organize your text and the content of your text. (50 marks)