

The Solar System: Meera's Postcards from Space

Read the story aloud together, then try the activities.

Name _____

Class _____

Date _____

Meera could not sleep. The Moon was shining through her window, and she wondered what was out beyond it. "Want to find out?" whispered Zoom, her toy rocket. In a blink, Meera was buckled into Zoom's seat, holding a stack of blank postcards, and the two of them were rushing up past the clouds, past the Moon, into the dark. "I'll send Grandma a postcard from every planet," Meera decided.

Their first stop was the Sun — though Zoom stayed very, very far away. "The Sun is a star," said Zoom, "a giant ball of hot, glowing gas. More than a million Earths could fit inside it." Close to the Sun they passed a small grey planet covered in craters. "Mercury," said Zoom. "The smallest planet and the closest to the Sun. It races round the Sun in just 88 days." Meera wrote her first postcard: Dear Grandma, the Sun is a star!

Next came Venus, wrapped in thick yellow clouds. Meera felt the heat even inside the rocket. "Venus is the hottest planet," said Zoom, "even hotter than Mercury. Its thick clouds trap the heat like a heavy blanket." Then a blue and white planet came into view, with one grey moon going round it. "Home!" Meera cried. "Earth," nodded Zoom. "The only planet we know of with oceans of liquid water, air to breathe — and life."

The fourth planet was rusty red. "Mars," said Zoom. "Its dust has rusty iron in it, which is why it looks red. It has the biggest volcano in the whole solar system." Beyond Mars they had to steer carefully through a wide ring of tumbling rocks. "The asteroid belt," said Zoom. "Millions of rocks, left over from long ago when the planets were made." Meera's postcard said: Mars is red because of rust!

Then came the giants. Jupiter was so big that Meera gasped — it is the largest planet of all, with a swirling red storm bigger than the whole Earth. Next was Saturn, circled by shining rings. "The rings are made of chunks of ice and rock," said Zoom. "And you can't land on Jupiter or Saturn. They are gas giants — mostly gas, with no solid ground to stand on."

Far out in the cold, they passed Uranus, a pale blue-green planet spinning on its side, and then Neptune, deep blue and the windiest planet of all. Beyond Neptune, a small icy world waved. "That's Pluto," said Zoom. "It's a dwarf planet — too small to count as a planet." Then Zoom turned for home. Back in bed, Meera laid out her eight postcards in order and remembered them with a silly sentence: My Very Excellent Mother Just Served Us Nachos. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

1. Match each word to its meaning

Write the letter next to each word.

1. Solar system ____

2. Star ____

3. Planet ____

4. Orbit ____

5. Gravity ____

6. Dwarf planet ____

A. a large, round world that travels around the Sun.

B. the path a planet takes around the Sun, or a moon takes around a planet.

C. the pull that keeps the planets moving around the Sun.

D. a small round world, like Pluto, that is not big enough to count as a planet.

E. the Sun and everything that travels around it.

F. a giant ball of hot, glowing gas that makes its own light. The Sun is a star.

2. Number the planets in order from the Sun (1-8).

[] Venus

[] Earth

[] Mars

[] Jupiter

[] Saturn

[] Uranus

[] Neptune

[] Mercury

3. Answer the questions

1. Is the Sun a planet?

2. Which planet is closest to the Sun?

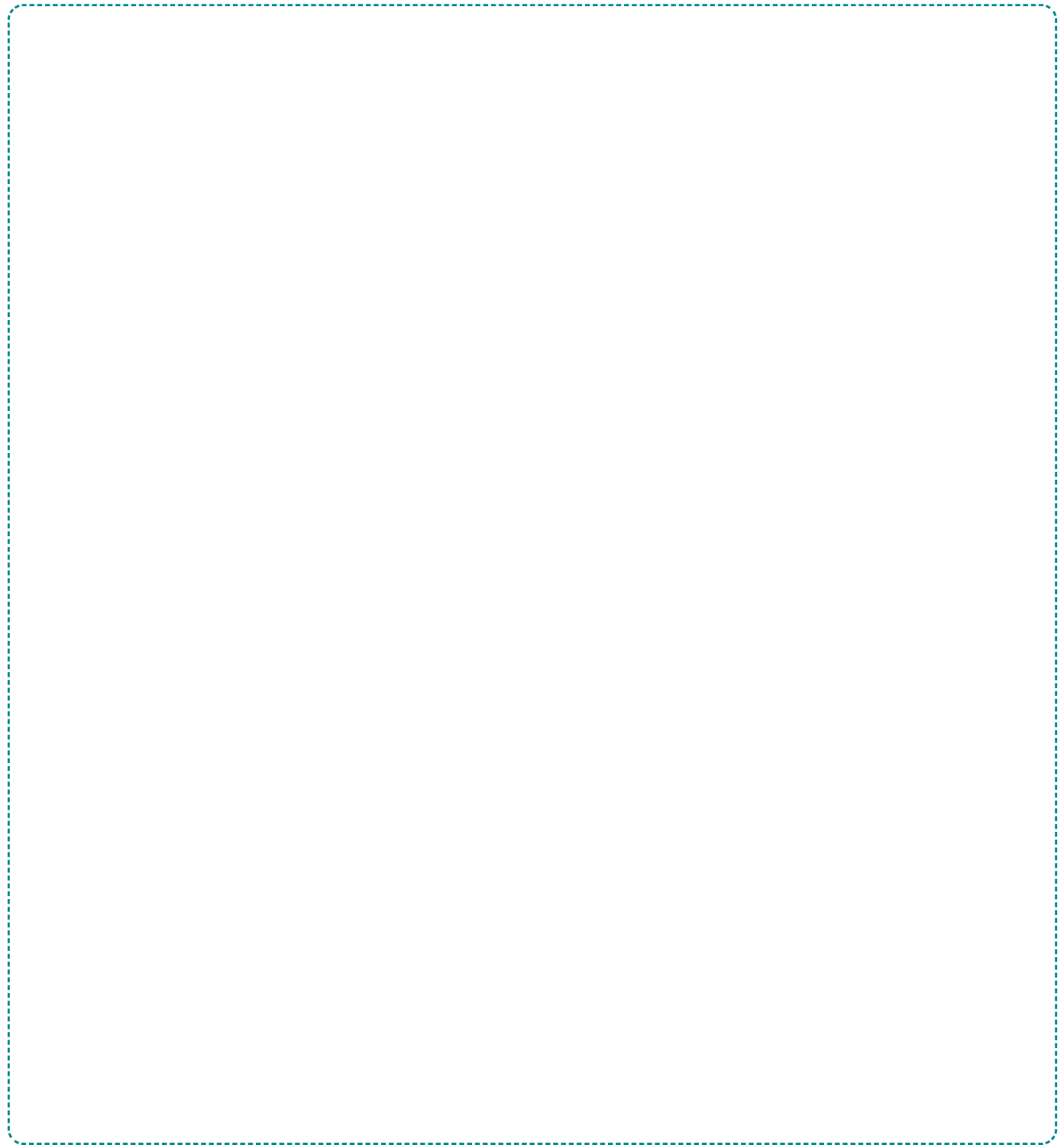
3. Why is Venus hotter than Mercury?

4. Why does Mars look red?

5. Why can't you land on Jupiter or Saturn?

4. Draw and label

Draw the Sun and the eight planets in order. Label each planet.

A large, empty rectangular area defined by a dashed teal border, intended for a child to draw the Sun and the eight planets in order and label them.

Answer key (for teachers and parents)

On its own page so you can leave it out when printing for children.

1. 1-E 2-F 3-A 4-B 5-C 6-D

2. 1. Mercury 2. Venus 3. Earth 4. Mars 5. Jupiter 6. Saturn 7. Uranus 8. Neptune

3.1 No — the Sun is a star, a giant ball of hot, glowing gas.

3.2 Mercury.

3.3 Venus has thick clouds that trap the heat like a blanket.

3.4 Its dust has rusty iron in it.

3.5 They are gas giants, made mostly of gas, with no solid ground to stand on.