THE DISTANCE BETWEEN PLANETS

In the following, the text between " " suggests what to say to the children.
Questions are in **bold** and actions in *italics.*

This symbol indicates:
things to look at

This symbol indicates:
action to take/activity to do

This symbol indicates:
explanations to delve deeper into the subject

PATH SHOWING THE DISTANCE BETWEEN PLANETS

This is a model that represents the planets to scale for distance and size.

The size and distance between planets in the solar system are represented to scale here. Just follow the semi-circular path to the end!

“Look at each column and you’ll see globes (or balls) of different sizes.”
Look at the globes on the first columns with your class.
What does the first big yellow globe represent? The Sun
What do the very small globes on top of the columns represent? The planets closest to the Sun.

“We’re going to name each planet as we reach it.”
Walk all the way along the semi-circular path to the last planet, naming each one as you reach the corresponding column.

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

“The stars are tiny compared with the distance between them!
Here you can see the size of the Earth and the Moon if we showed the distance between them to scale.”

Activity

Being a planet

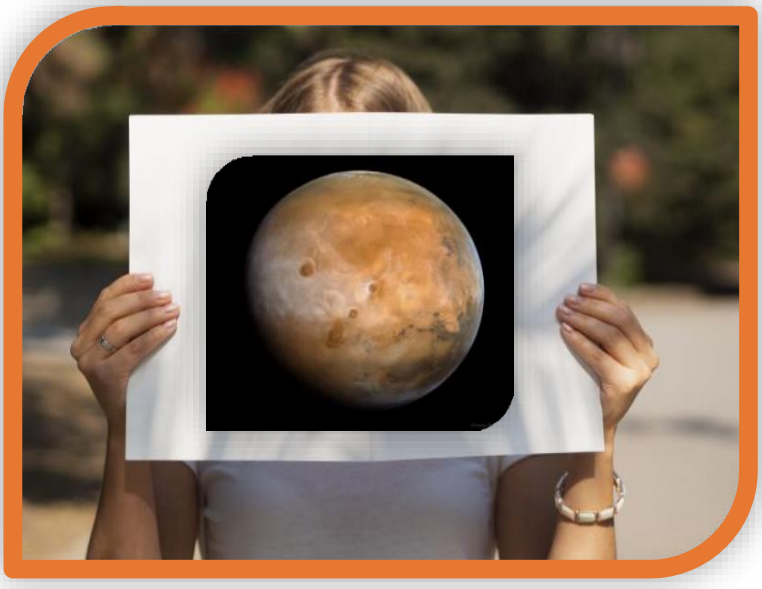
"Now we're going to play at being planets."

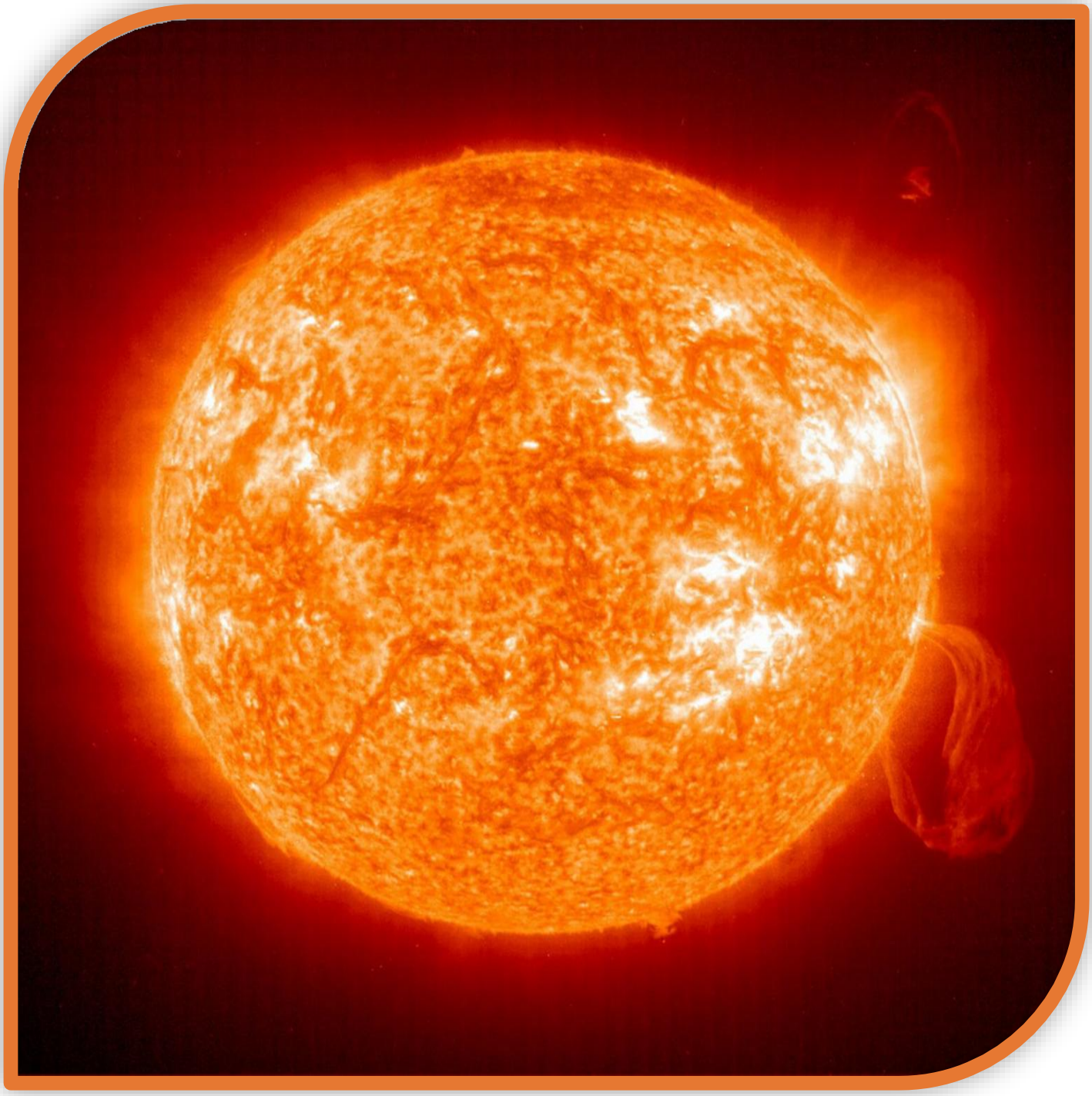
Give each child a label representing the Sun or the named planets (to be printed from the following pages).
Help them to position themselves next to the column of the planet on their label.
Comment: *Two adults are needed to keep all the children in sight at all times.*

"Can you see your classmate next along the path? And can you see the planet next along the path?" The children will be able to see the child next along the path but not necessarily the small globe representing the planet.

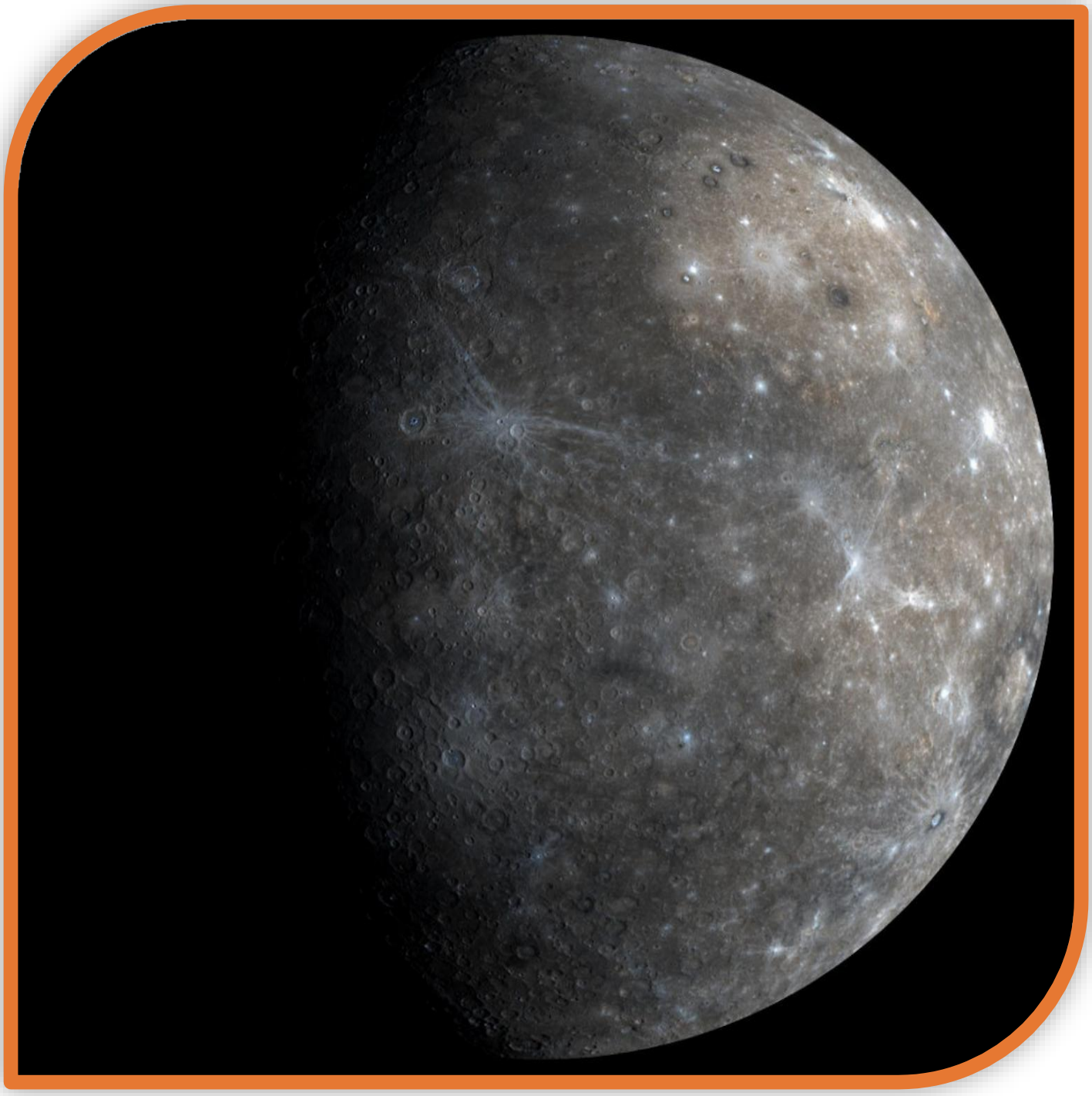
Can the first child representing the Sun see the last one representing Neptune?
No. The planets in the solar system are a long way away from each other. The first child representing the Sun will not be able to see the classmate next to the last planet (Neptune).

Although the planets are huge, they're tiny compared with the distance between them!





The Sun



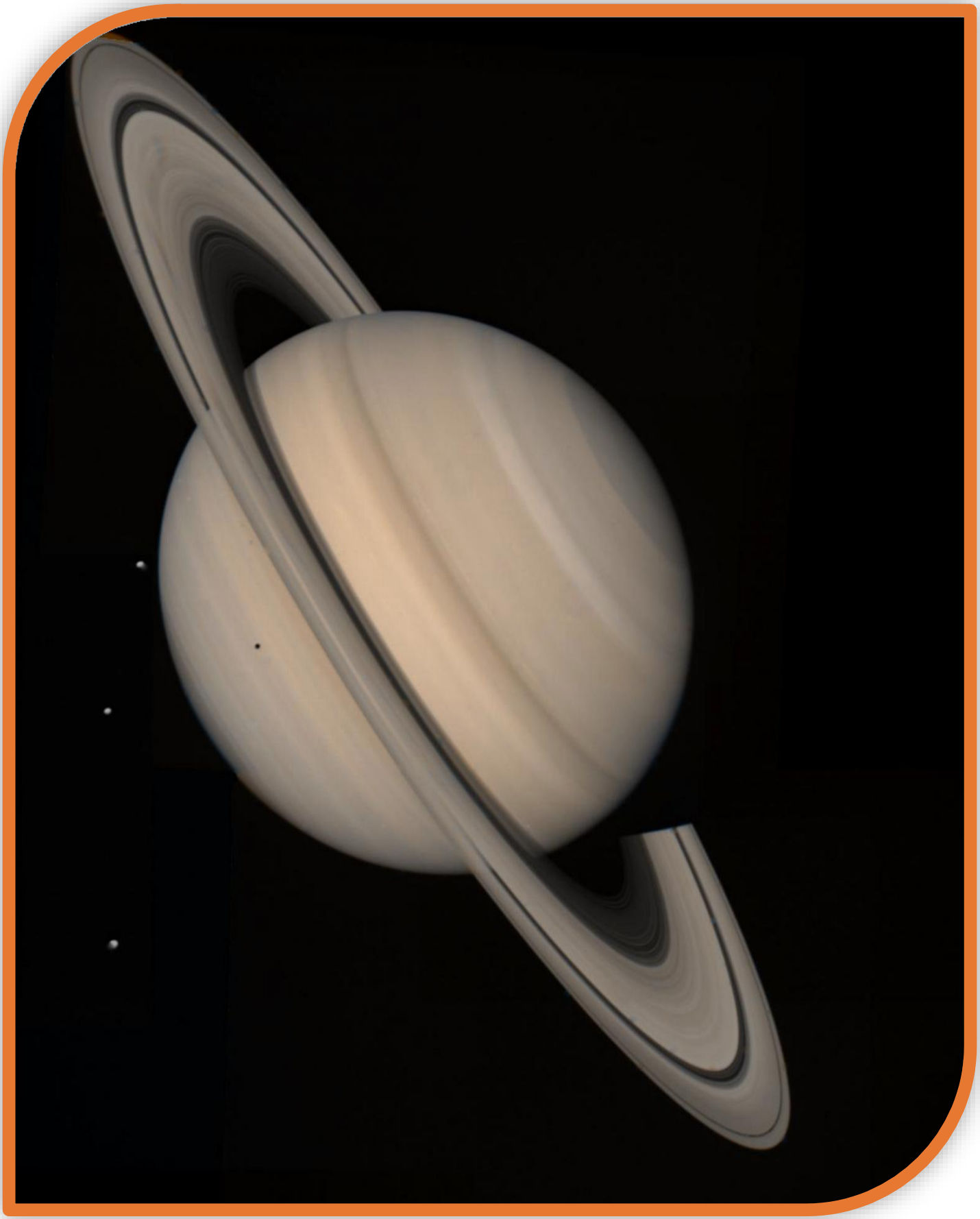
Mercury

Venus

Earth

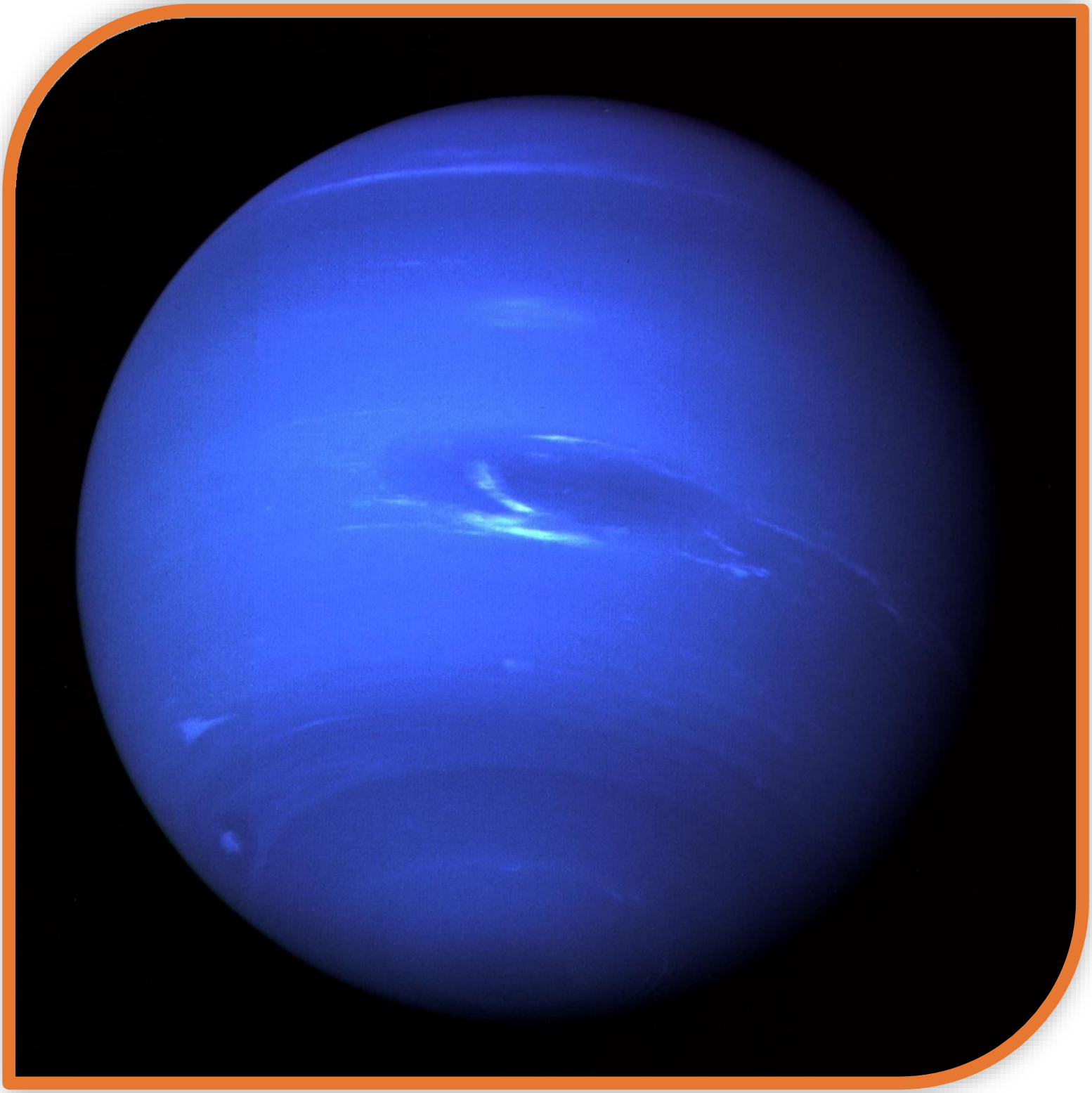
Mars

Jupiter



Saturn

Uranus



Neptune

Activity

Line up, planets!

How can we see all the children at the same time?

"Now we're going to measure the distance between the planets."

Starting from the Sun, count the number of steps between each planet. The youngest class members will need the teacher's help to count the steps between each planet.

Now move across to Infinity alley (Allée de l'infini).

The children can reproduce the distance between solar system planets by distancing themselves by the same number of steps on this long straight alley.

The teacher should note down the number of steps to help the children remember this information.

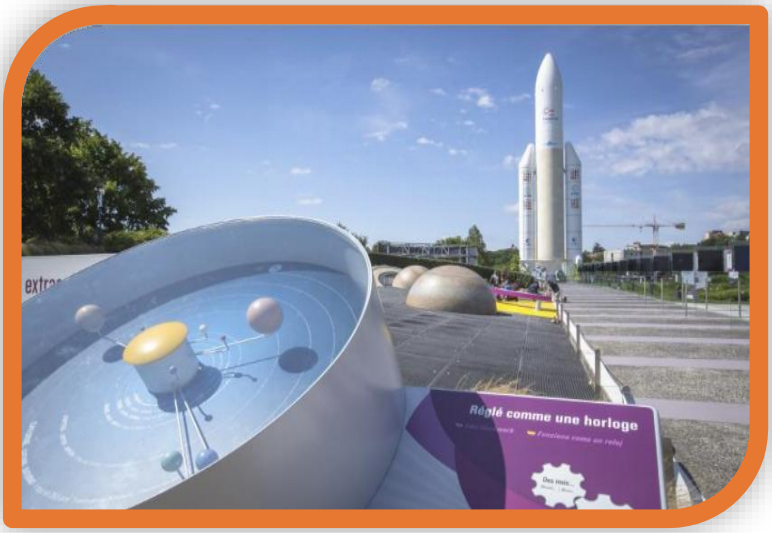
Planets	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Number of steps between each planet	..... steps	..... steps	..... steps	..... steps	..... steps	..... steps	..... steps	..... steps

Ask the child representing the Sun to call out the names of the planets assigned to their classmates and ask them to raise their hands.
For example: Mars, please put your hand up.

You will need to speak louder and louder because the last planets are a long way away.

The planets are not always aligned at the same distance as shown by our model. They revolve around the Sun, so sometimes they are closer or further from each other.

This phenomenon can be seen on the moveable model at the start of the path showing the distance between planets.



A spacecraft travelling at several thousand kilometres per hour will take three days to reach the Moon and around seven months to reach Mars!

Key points

- **Planets are a very long way from each other.**
- **They appear very small compared with the distance between them.**
- **Some are further from the Sun than others.**