

Nova In Space



World Space Week Oct. 4-10
Colouring Booklet

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Getting Started



Hello! My name is Nova, and I am an astronaut. That means I get to explore the solar system, which includes the Sun, Moon, and planets.

To celebrate World Space Week, I will be spending the next 7 days visiting 7 different places in the solar system, and I want you to come with me!

For each day of the trip, you can follow along by reading my journal entry, which will have hints to help you complete a colouring page. But that's enough information for now. Let's blast off on our trip through space!

Day 1: Mars

October 4, 2022

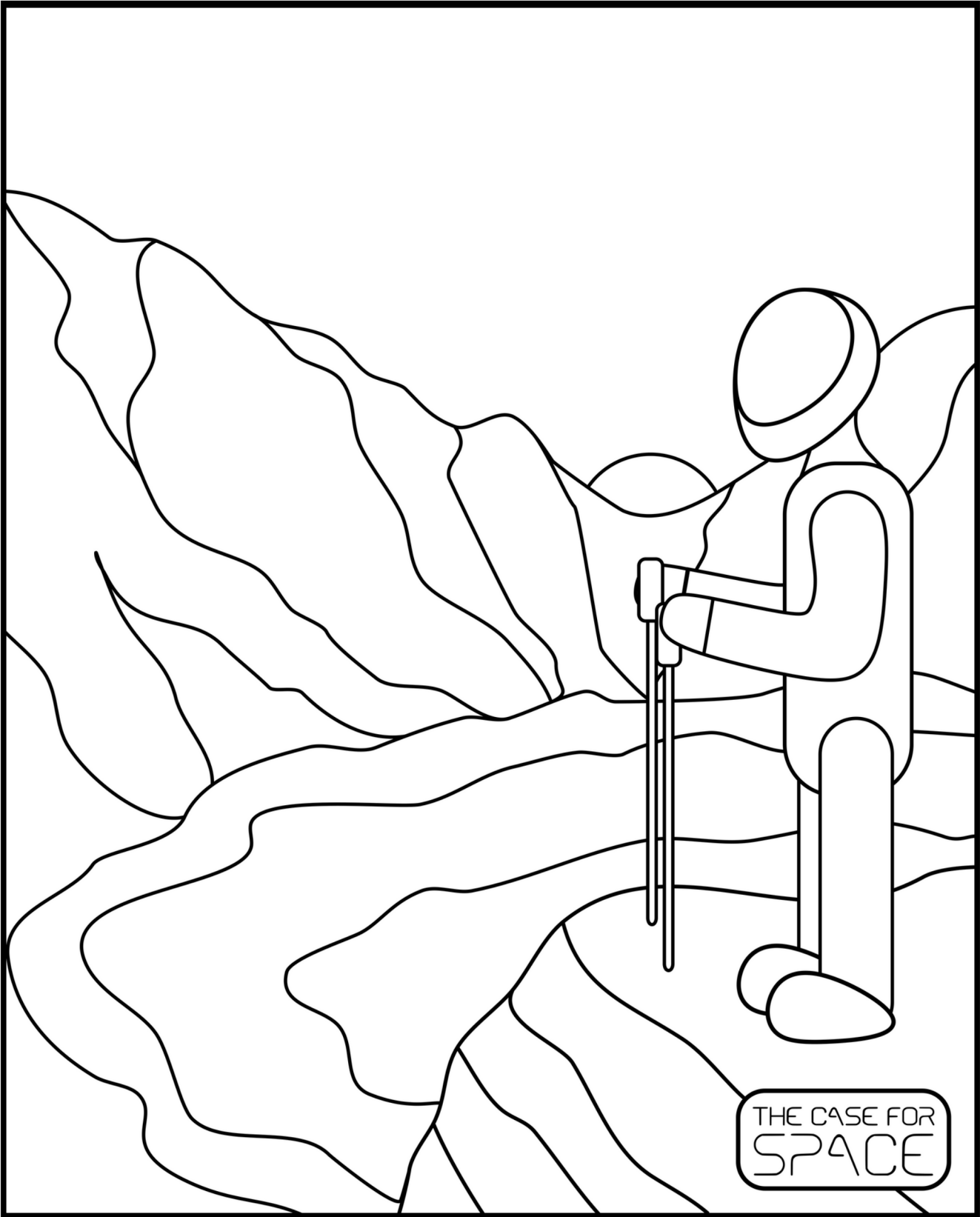
Today I visited Mars, the fourth planet from the Sun. Here, the rocks and ground are red because they are full of iron (a type of metal).

The landscape on Mars is similar to Earth in many ways. I visited a valley surrounded by mountains. Long ago, this valley had water, but it has all dried up. This means that in the past, Mars may have had life!

I was also surprised to see that sunsets on Mars are blue instead of pink. This is because the air on Mars is different from Earth.

To see Mars this month, ask a parent to take you outside early in the morning and look for a red dot in the southern sky.

-Nova



Day 2: Mercury

October 5, 2022

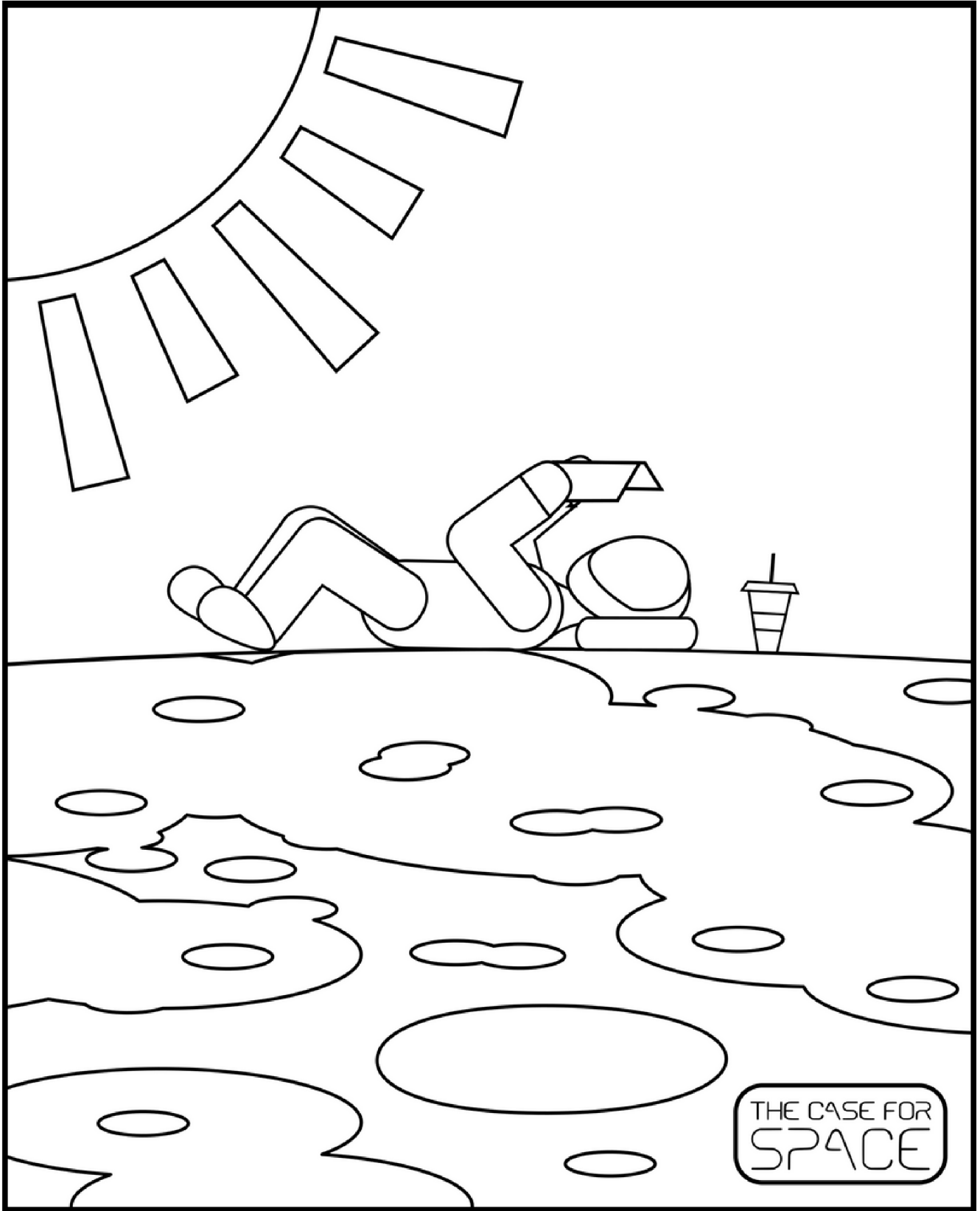
Today's destination was Mercury, the smallest planet in the solar system. Here, the Sun shines 7 times brighter than it does on Earth!

Mercury is gray in colour, like the moon. It has lots of craters, which formed when asteroids (rocks from space) crashed into the planet.

Even though Mercury is the closest planet to the Sun, it is not the hottest planet. This is because Mercury has no air to trap heat. The sky is also black because there is no air to reflect light.

To see Mercury this month, ask a parent to take you outside just before sunrise and look for a white dot very low in the eastern sky.

-Nova



Day 3: Jupiter

October 6, 2022

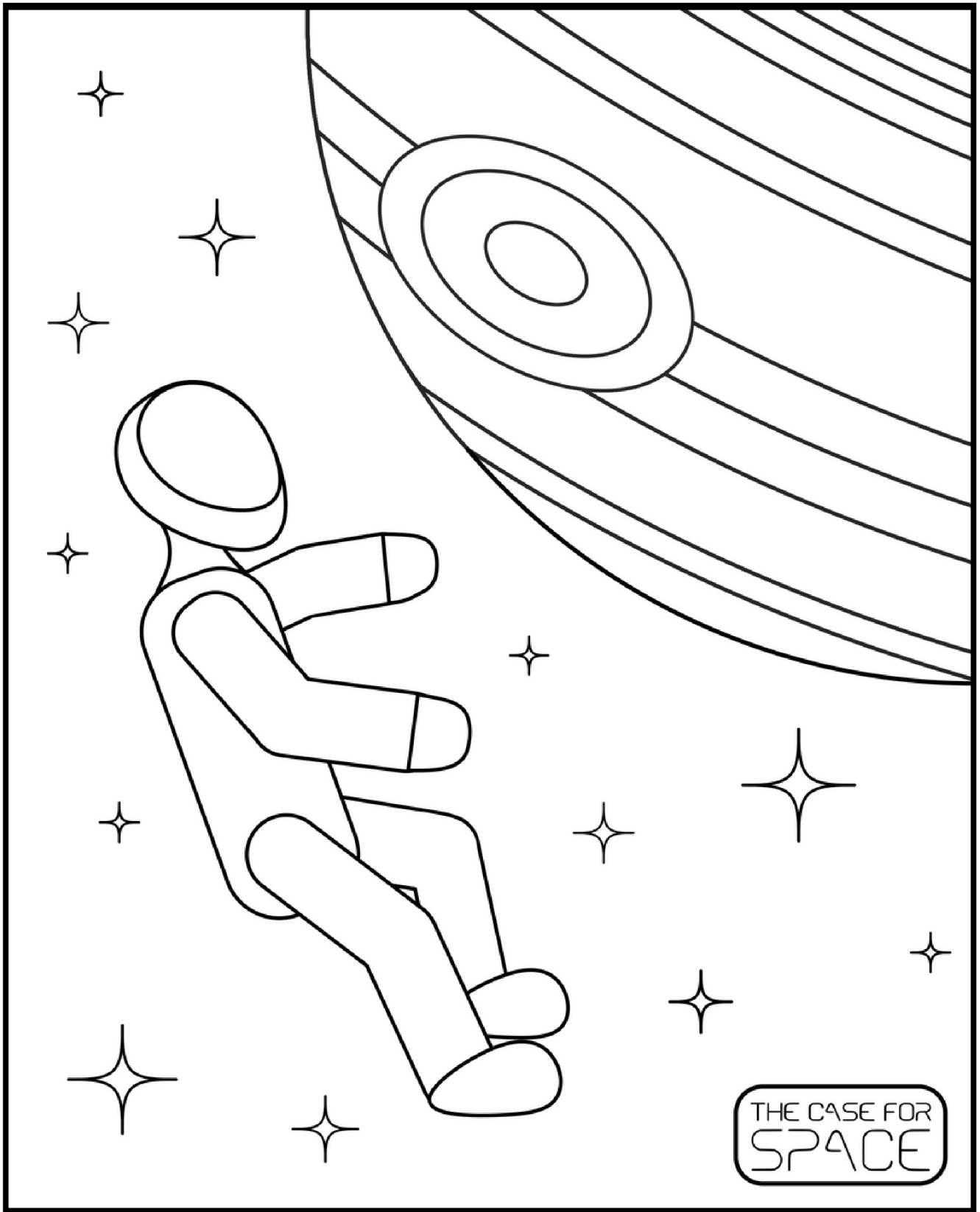
Today I flew by Jupiter, the largest planet in the solar system. Jupiter is the fifth planet from the Sun and it has almost 80 moons.

Unlike Earth, Jupiter is not a rocky planet. Instead, it is made of many different gases which make it look like a marble that is orange, white, and brown.

One very interesting feature on Jupiter is the Great Red Spot, an enormous storm that has been blowing for hundreds of years. In fact, the Great Red Spot is bigger than the Earth!

To see Jupiter this month, ask a parent to take you outside in the evening and look for the brightest dot in the southern sky.

-Nova



THE CASE FOR
SPACE

Day 4: Venus

October 7, 2022

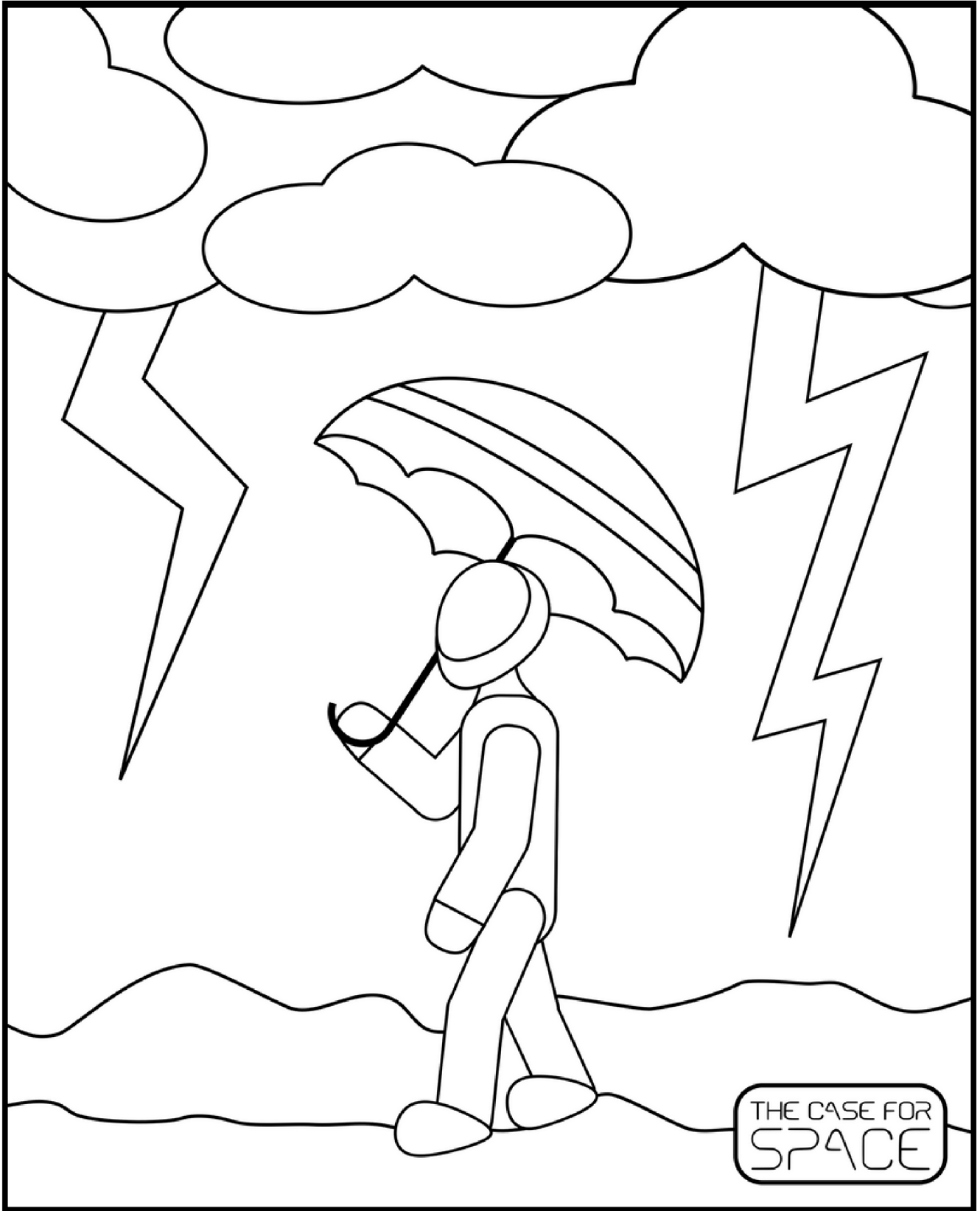
Today I landed on Venus, the second planet from the Sun. Venus is Earth's neighbour, and it is roughly the same size as our planet.

The surface of Venus is rocky like Earth, but everything looks yellow-brown because of the thick clouds. Sometimes, these clouds produce spectacular lightning storms!

The thick atmosphere of Venus is very good at trapping heat from the Sun. This is why Venus is the hottest planet in the solar system.

Unfortunately, Venus will not be visible in the sky this month. You will have to wait until early 2023, when it will shine brightly just before sunset in the western sky.

-Nova



Day 5: Saturn

October 8, 2022

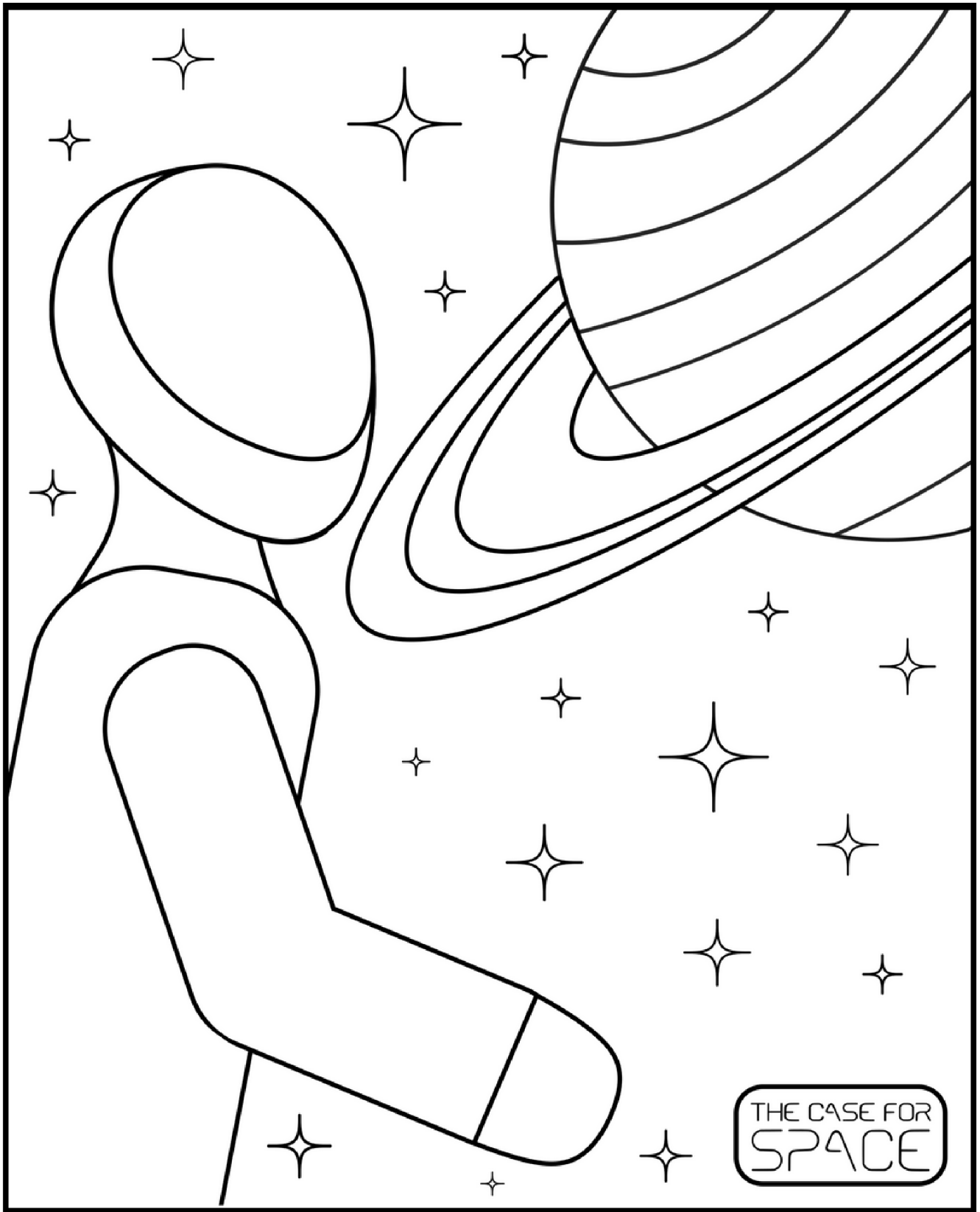
Today I flew by Saturn, the sixth planet in the solar system. Unlike the other planets, Saturn has a beautiful set of rings circling it.

Saturn is a gas planet like Jupiter, but it is not as large. Its clouds also don't have as many patterns, which is why the whole planet has a solid yellow-brown colour.

The rings of Saturn are actually not a solid object! They are made of billions of pieces of ice and rock that orbit (circle) the planet. Slowly, these pieces are falling into Saturn.

To see Saturn this month, ask a parent to take you outside in the evening and look for the second brightest dot in the southern sky.

-Nova



Day 6: Sun

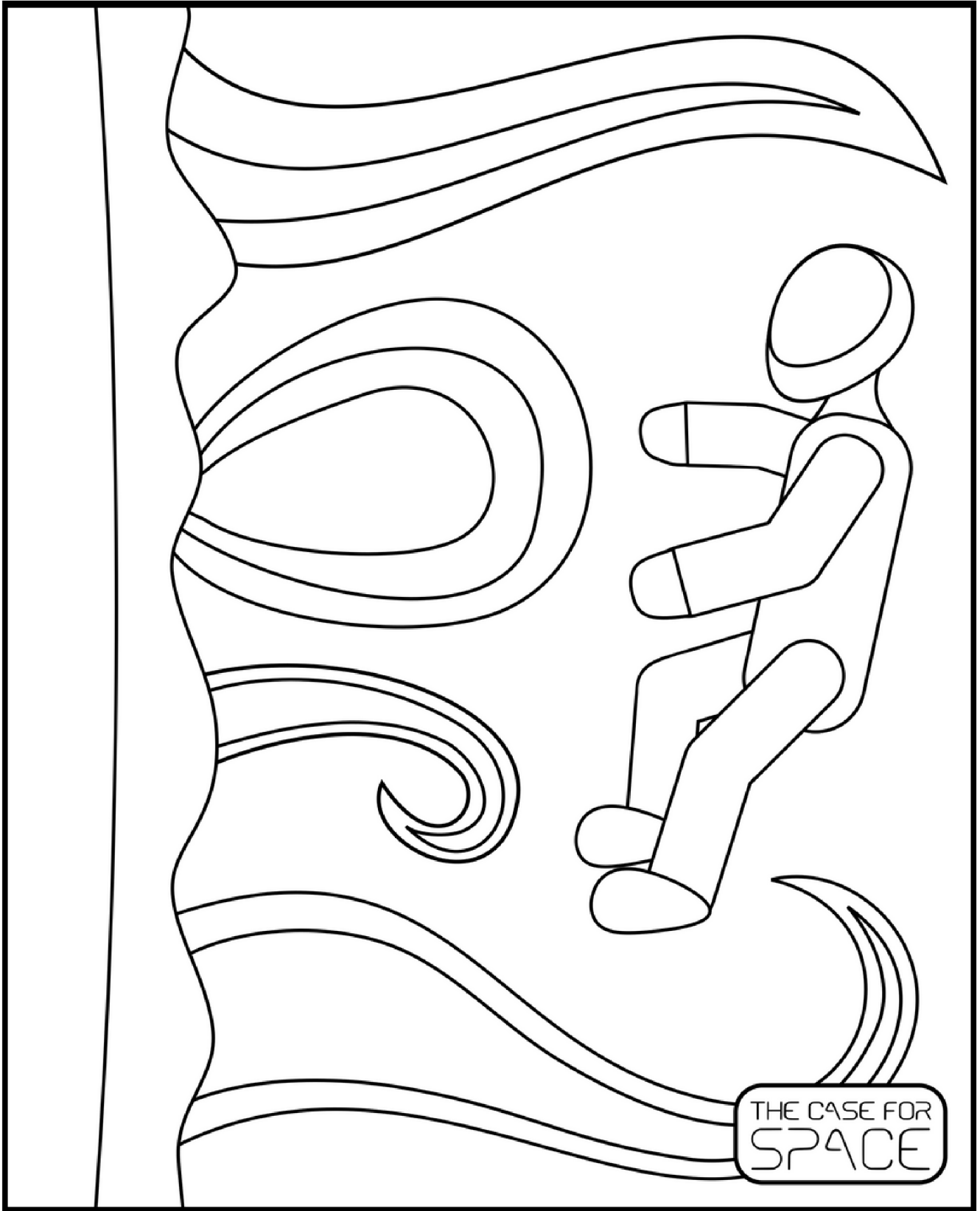
October 9, 2022

Today I visited the Sun, which is the star at the center of our solar system. Unlike the planets, the Sun produces its own heat and light. This is possible because of the Sun's enormous size. In fact, one million Earths could fit inside the Sun!

From Earth, the Sun looks yellow, but in space, it is actually white! Sometimes, the Sun has dark areas on its surface which are called sunspots. These sunspots can produce solar flares, which are large explosions of energy.

It is important to never look at the Sun without proper protection because you can seriously hurt your eyes!

-Nova



Day 7: Moon

October 10, 2022

Today I played basketball on the Moon! What makes the Moon different from the planets is that it spins around the Earth and not the Sun.

The Moon's surface is covered in gray soil which is called lunar regolith. There are also many craters here, just like Mercury.

It was very easy to play basketball on the Moon because the gravity (the force pulling you to the ground) is much weaker than Earth.

This meant that I could jump very high!

You can see the Moon almost every day in the sky, but it doesn't always look the same. This is because the Moon goes through a cycle of phases depending on how it is lit up by the Sun.

-Nova



Explore Further

I've finally made it back to Earth, but for you, the journey has just begun! There are so many ways you can keep learning about space, even after World Space Week ends.

One of the easiest ways you can learn more about space is by simply looking up at the night sky. Stargazing can be done from anywhere, and all you need are your eyes. If you look up in the right spot at the right time, you can see everything from planets to meteors to even the Andromeda galaxy! If this sounds like fun, ask a parent to help get you started with stargazing.

Reading is another great way to learn more about places that you can't visit in person, like space. In fact, I first decided to become an astronaut after reading a book about space. Ask a librarian at your nearest library to get started!

Finally, the internet is another resource you can use to learn more about space with a parent. Here are my favourite websites:

- www.asc-csa.gc.ca
- www.nasa.gov
- www.planetary.org

But now, it's time to say goodbye. I have a new mission to prepare for, and you have much exploring of your own to do. Maybe we will meet in space again someday!

-Nova



This booklet was made by The Case For Space,
a Canadian nonprofit organization dedicated
to boosting youth engagement in space.

Learn more at:

www.thecaseforspace.weebly.com