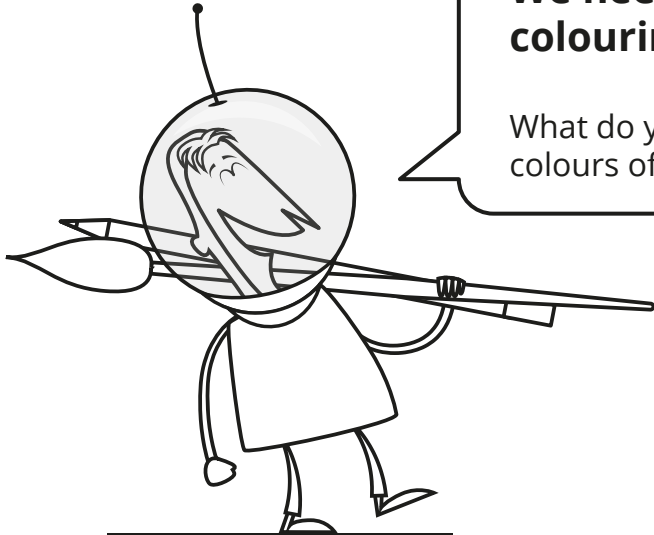




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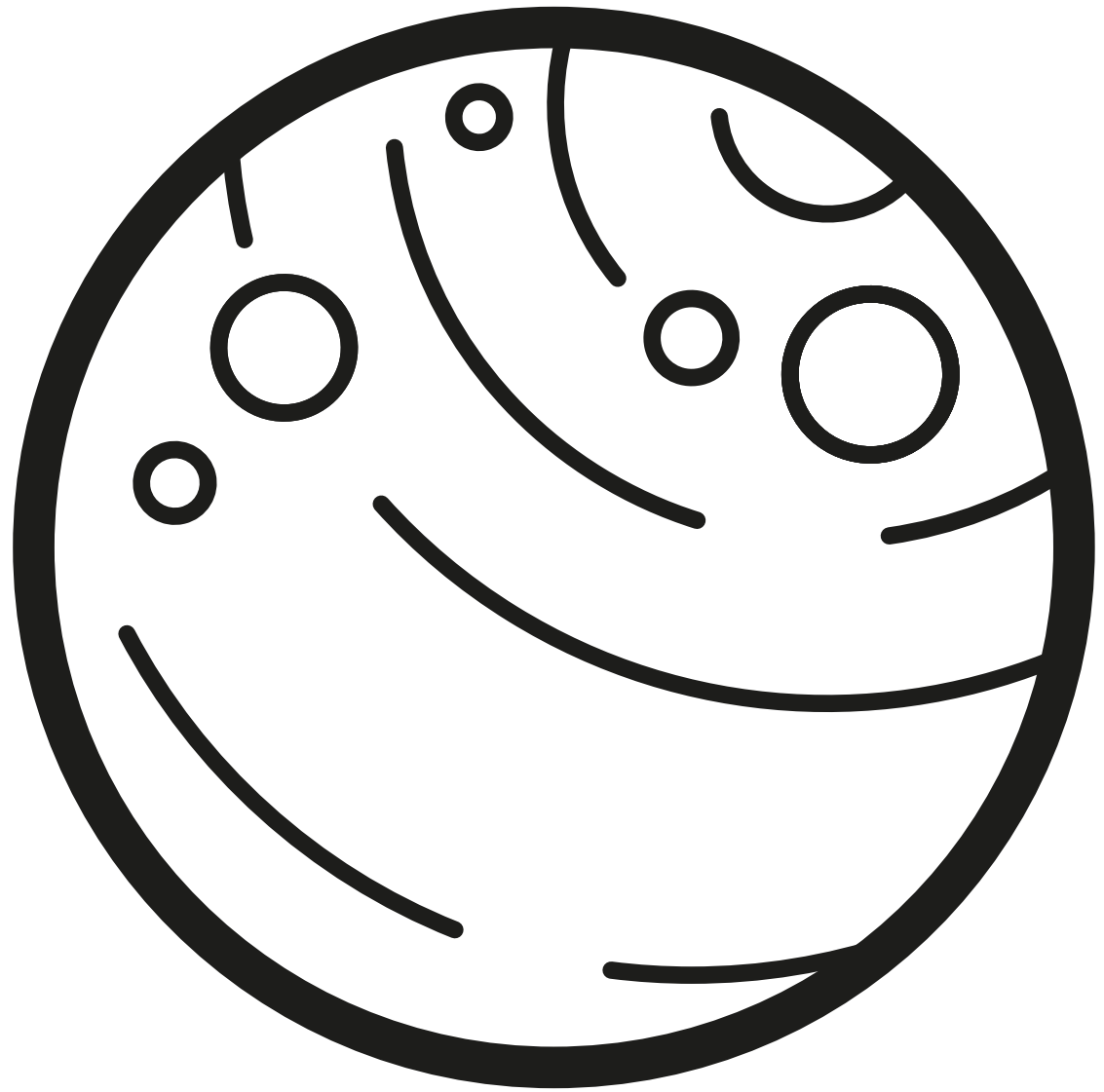
**We need your
colouring skills!**

What do you think the
colours of Mercury are?

DID YOU KNOW?

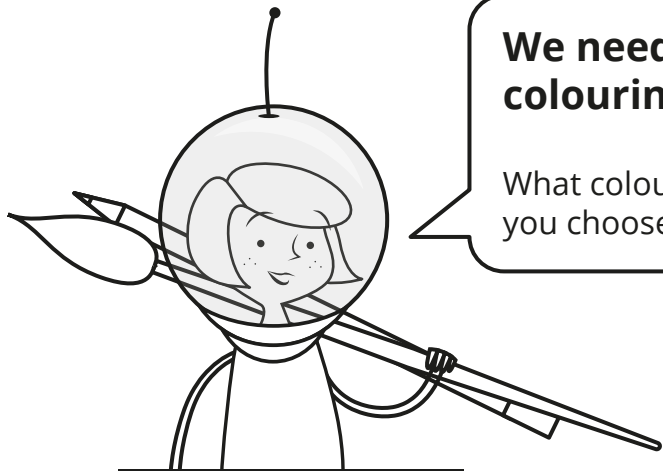
Mercury

- Mercury is the smallest planet in our solar system.
- It is only slightly larger than the Earth's Moon.
- One day on Mercury is as long as 59 days on Earth.
- A year on Mercury is as long as 88 Earth days
- Temperatures on Mercury are extreme, reaching 430°C during the day, and -180°C at night.





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**We need your
colouring skills!**

What colours will
you choose?

DID YOU KNOW?

Venus

- Venus is the second closest planet to the Sun.
- One day on Venus lasts 243 Earth days.
- A year on Venus is as long as 225 Earth days.
- Venus is the hottest planet in our Solar System.
- It has a toxic atmosphere and thick sulphuric acid clouds that smell like rotten eggs.





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DID YOU KNOW?

The Earth

Depending on where you are on the globe, you could be spinning through space at just over **1,000 miles per hour**.

Water covers **70 percent** of Earth's surface.

1 million Earths could fit in the Sun.

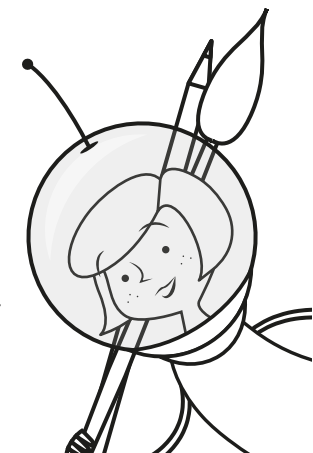
Earth's atmosphere is composed of about 78 percent nitrogen, 21 percent oxygen, 0.9 percent argon, and 0.1 percent other gases.

Earth is the only planet not named after a god.



We need your colouring skills!

What colours will you choose?

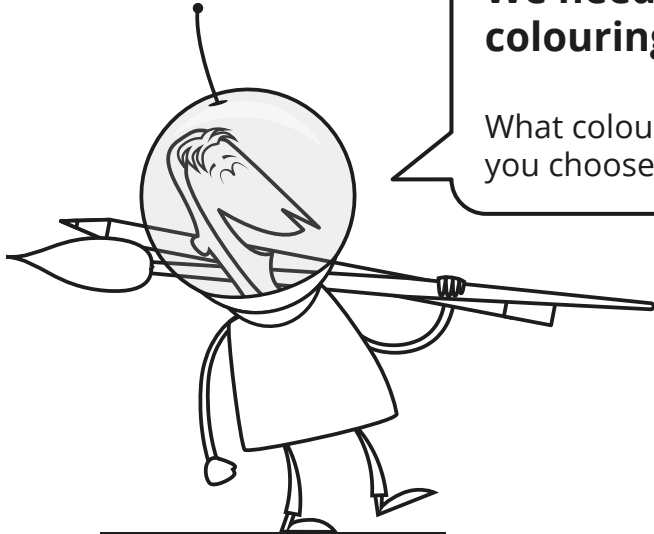




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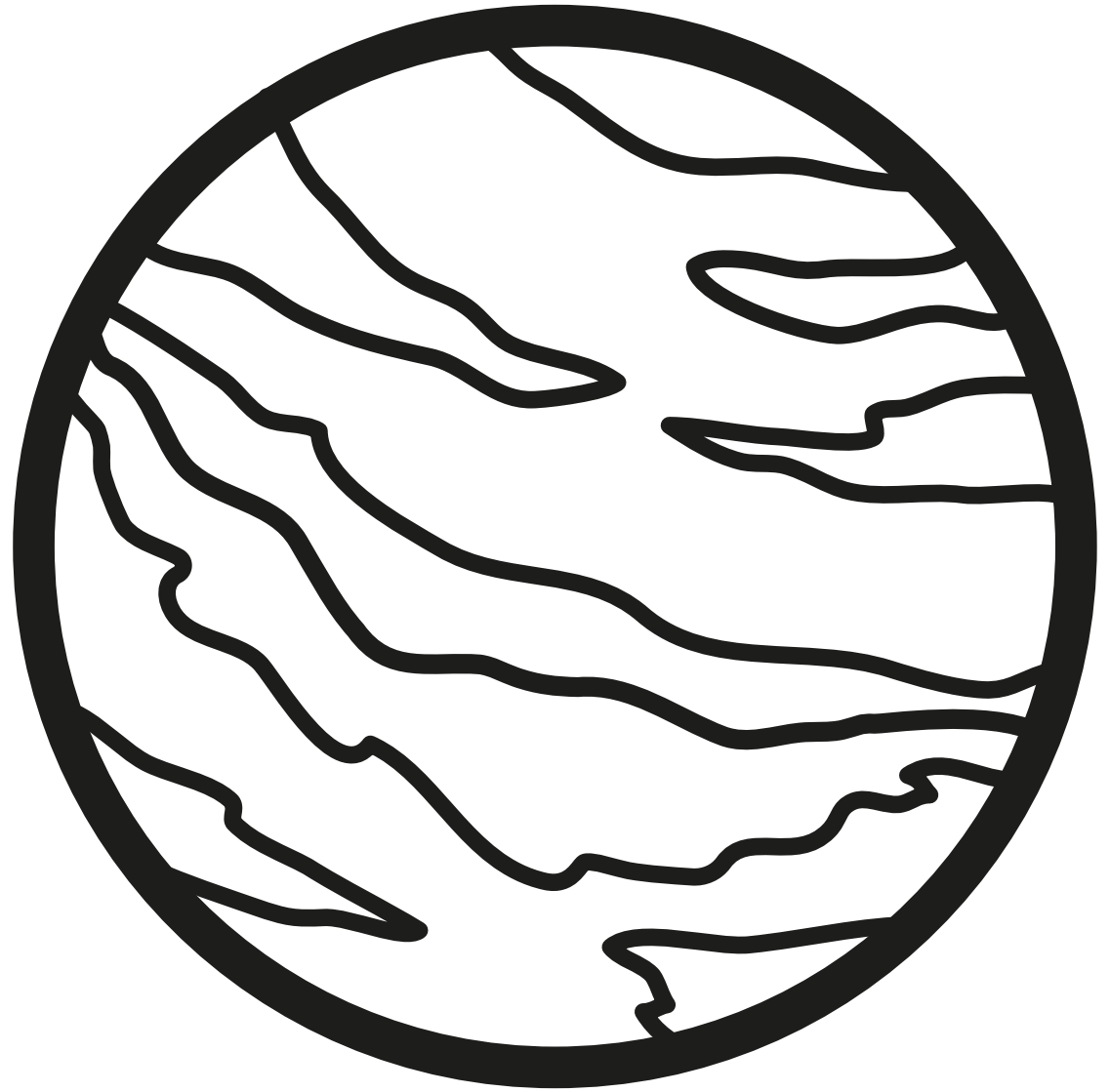
What colours will
you choose?



DID YOU KNOW?

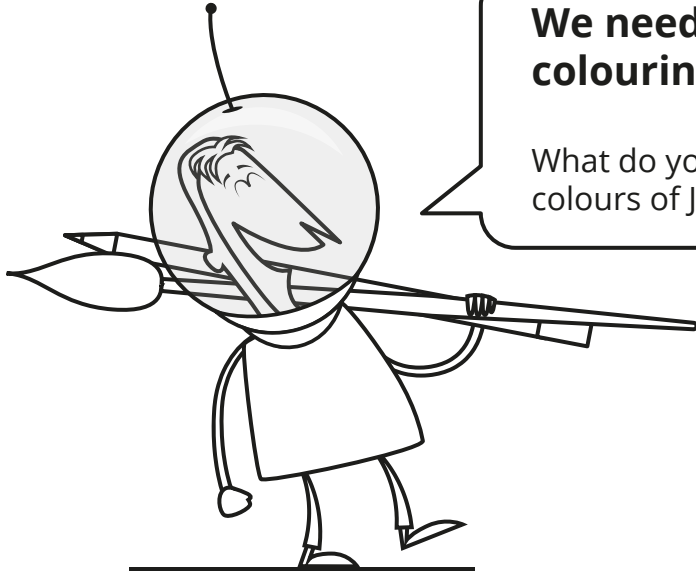
Mars

- Mars has two moons named Phobos and Deimos.
- One day on Mars lasts a little over 24 hours.
- A year on Mars is as long as 687 Earth days.
- Iron minerals on its surface make the planet look red.
- There have been many missions to Mars. The first successful flyby was made by Mariner 4 in 1965.





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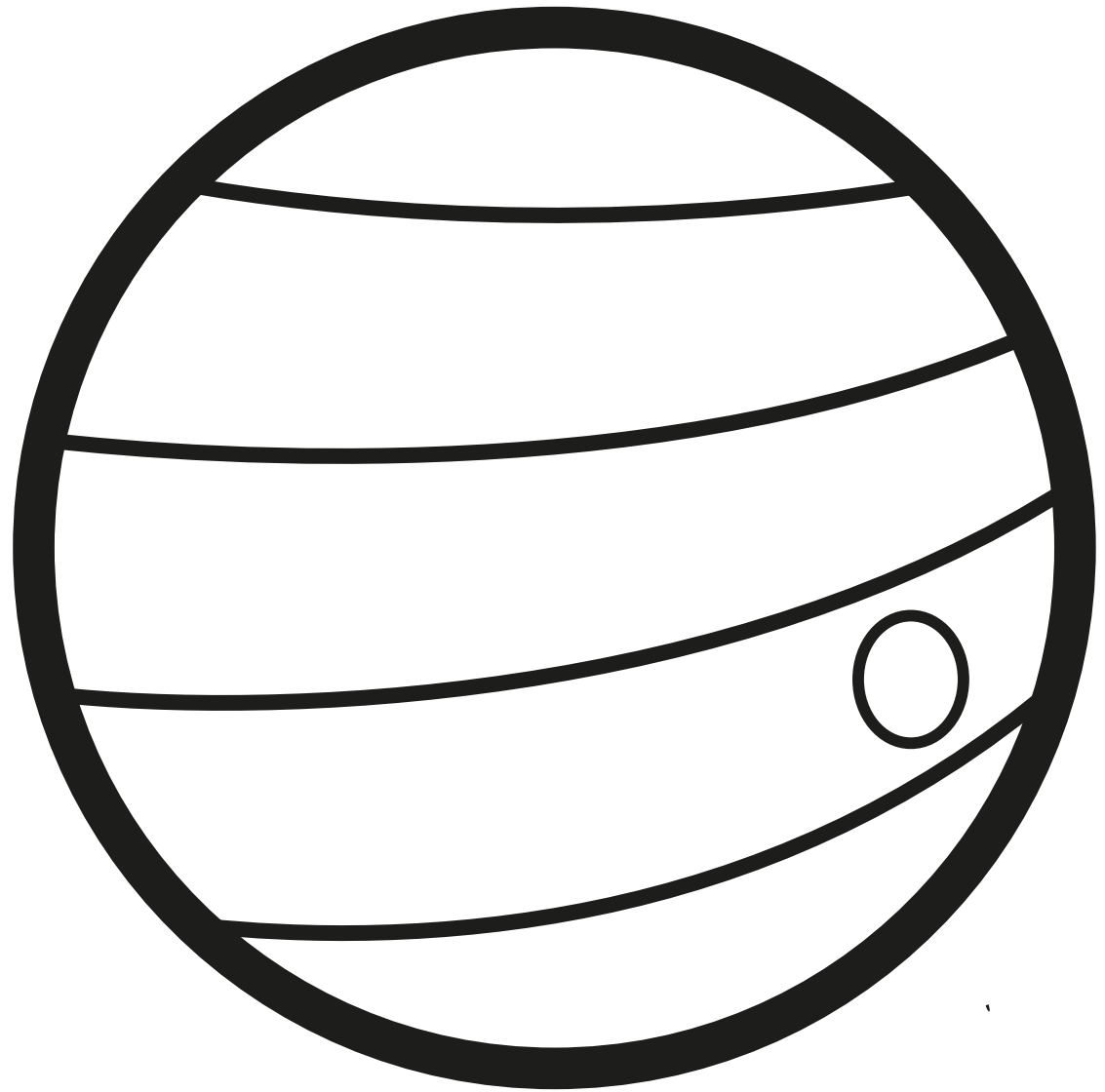
**We need your
colouring skills!**

What do you think the
colours of Jupiter are?

DID YOU KNOW?

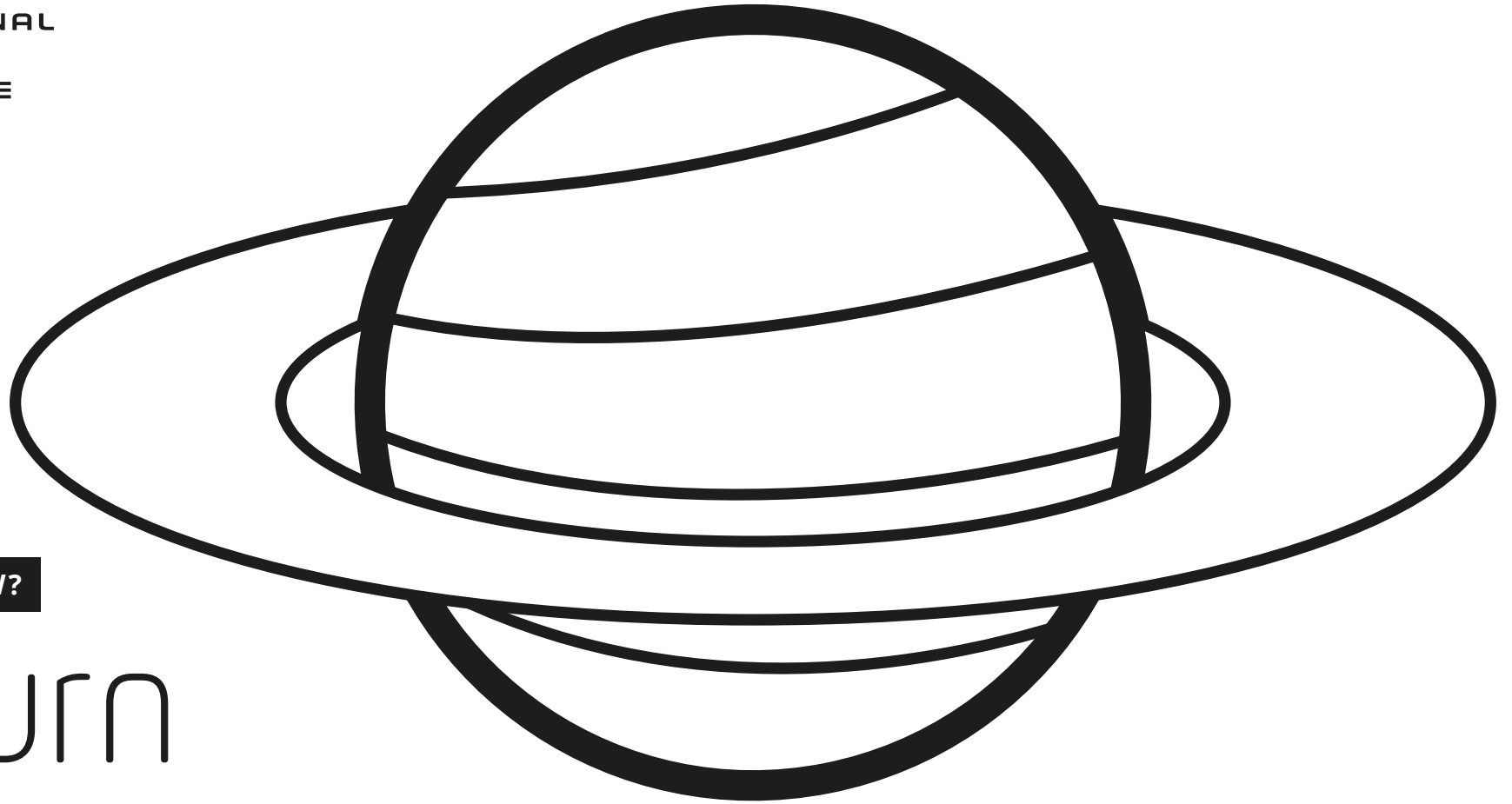
Jupiter

- Jupiter is the largest planet in the solar system.
- Jupiter is as large as 1,300 Earths.
- It's the 3rd brightest object in the night sky.
- There's a big red spot on Jupiter, which is in fact a storm that has been raging for more than 350 years.





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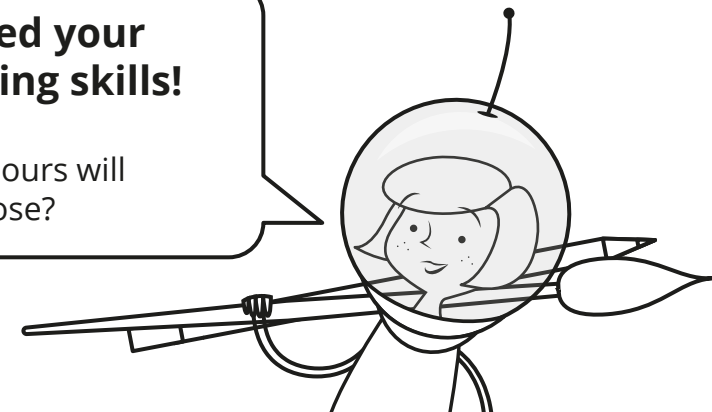
DID YOU KNOW?

Saturn

- Saturn is the 2nd largest planet in the Solar System.
- 764 Earths could fit inside Saturn.
- Saturn's rings are made of ice and rock. They span 175,000 miles and yet they're only 20 metres thick.
- Saturn is less dense than water. If there was a bathtub big enough, Saturn would float on top of the water!
- The spacecraft 'Cassini' orbited around Saturn for 13 years, taking lots of photos and gathering important information.

**We need your
colouring skills!**

What colours will
you choose?

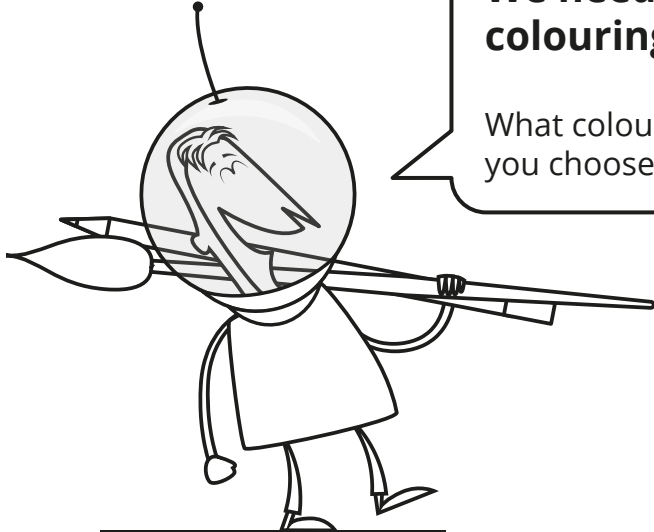




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What colours will
you choose?



DID YOU KNOW?

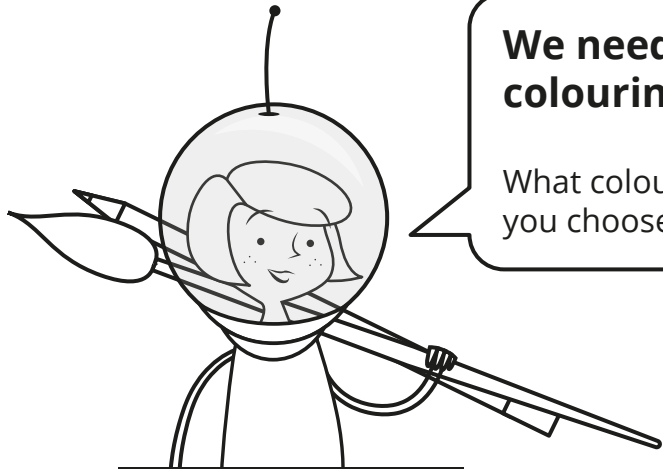
Uranus

- Uranus is tilted and rotates on its side.
- One day on Uranus lasts around 17 hours.
- A year on Uranus is as long as 84 Earth years.
- Uranus was the first planet found using a telescope
- It was almost named Georgium Sidus, after King George III. Instead, the scientific community named it after the Greek god of the sky.





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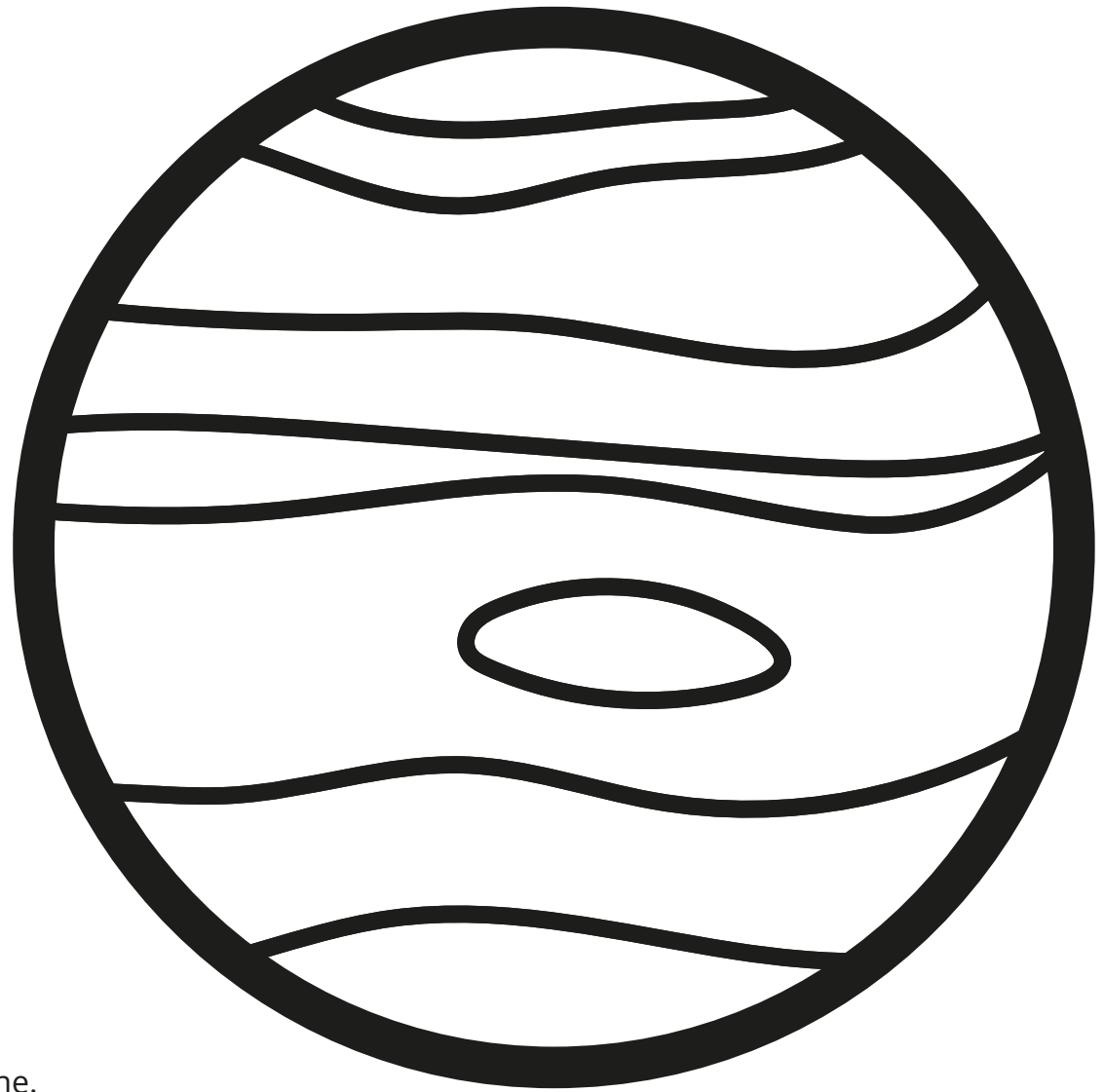
**We need your
colouring skills!**

What colours will
you choose?

DID YOU KNOW?

Neptune

- Neptune is the eighth planet from the Sun.
- One day on Neptune lasts around 16 hours.
- A year on Neptune is as long as 165 Earth years.
- Voyager 2 is the only spacecraft to have visited Neptune.
- It has 14 known moons, named after sea gods and nymphs from Greek mythology.





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What do you think will **perk up Pluto?**



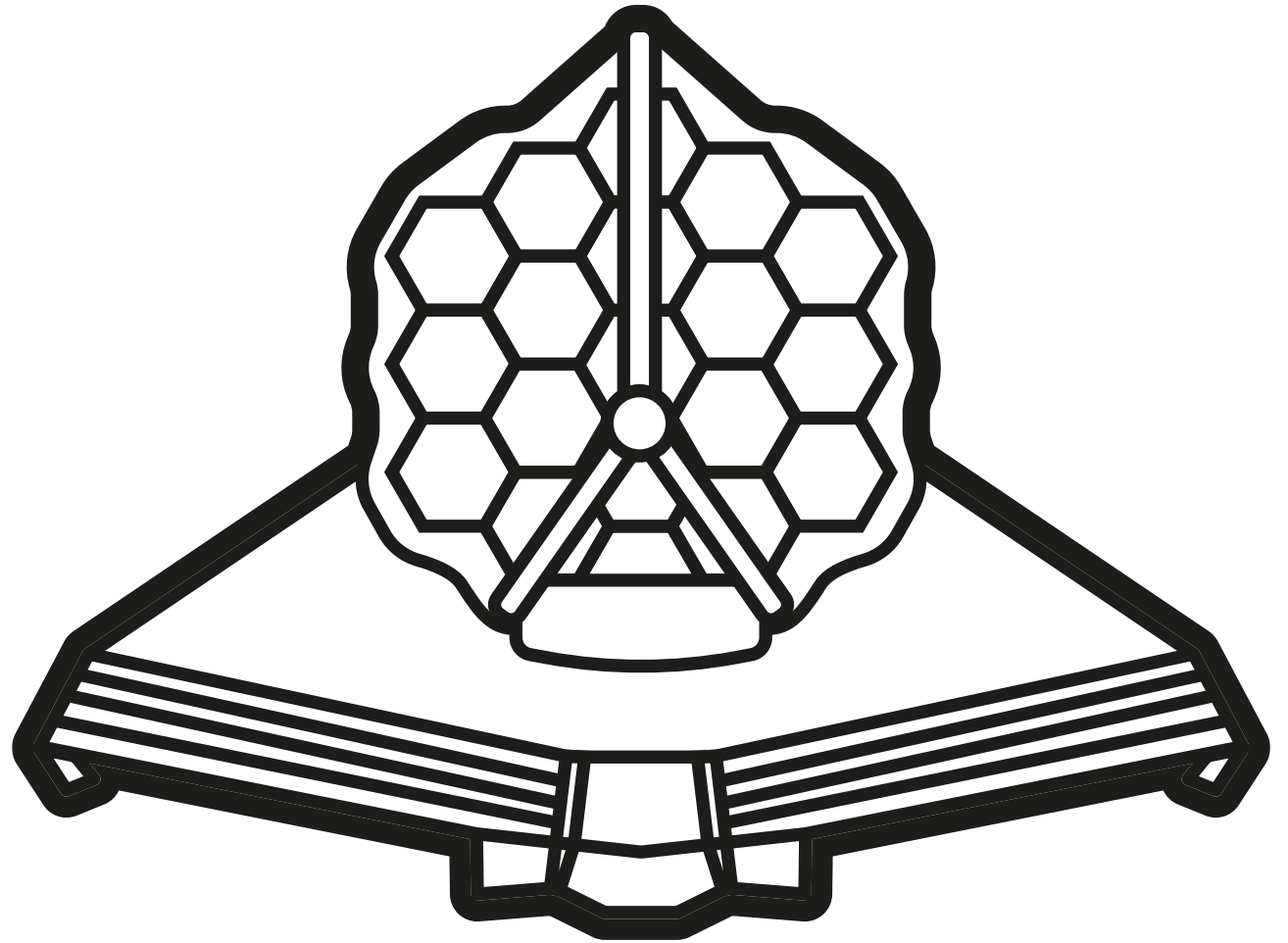
BOOTED OUT OF THE PLANET CLUB

Pluto isn't happy...

When Pluto was discovered in 1930, astronomers thought they'd found the Solar System's ninth planet. But as they discovered more worlds in the distant Kuiper Belt, Pluto was reclassified as a dwarf Planet.



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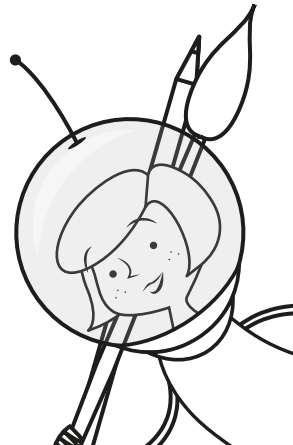
DID YOU KNOW?

James Webb Space Telescope

Due to launch in 2021, this enormous telescope is the size of a tennis court. In fact, it is so big it will have to launch folded up!

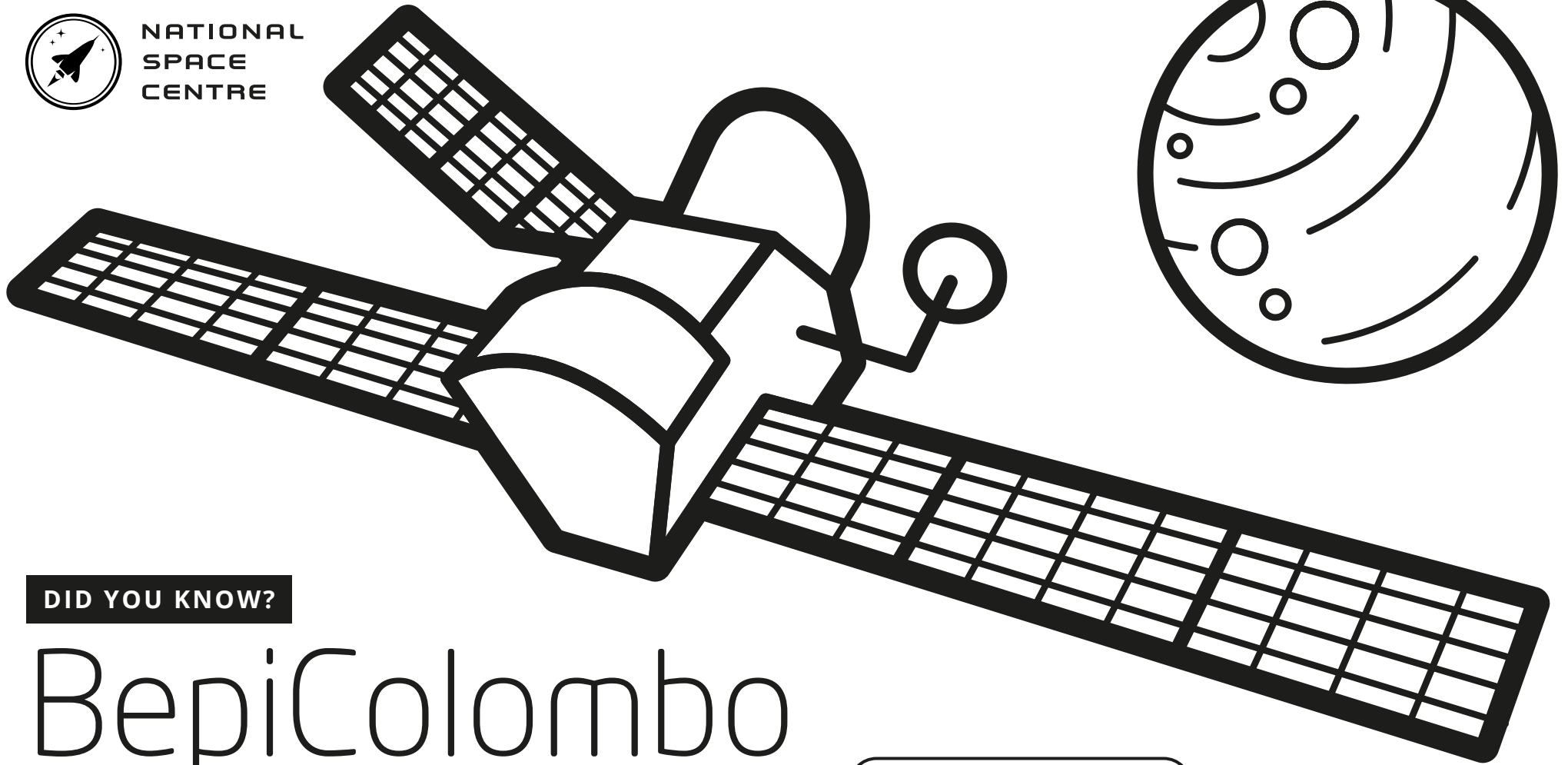
We need your colouring skills!

What colours will you choose?





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DID YOU KNOW?

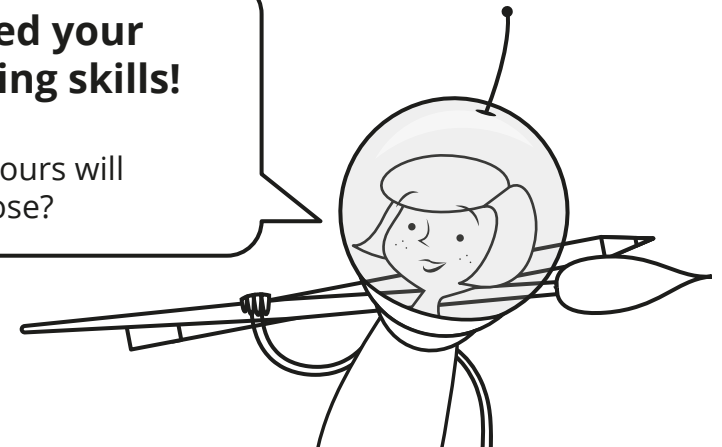
BepiColombo

BepiColombo is Europe's first mission to Mercury. It was launched on 20 October 2018, and is on a seven-year journey to the smallest planet of our Solar System.

When it arrives at Mercury in late 2025, it will gather information about the planet, including its origin and composition.

**We need your
colouring skills!**

What colours will
you choose?





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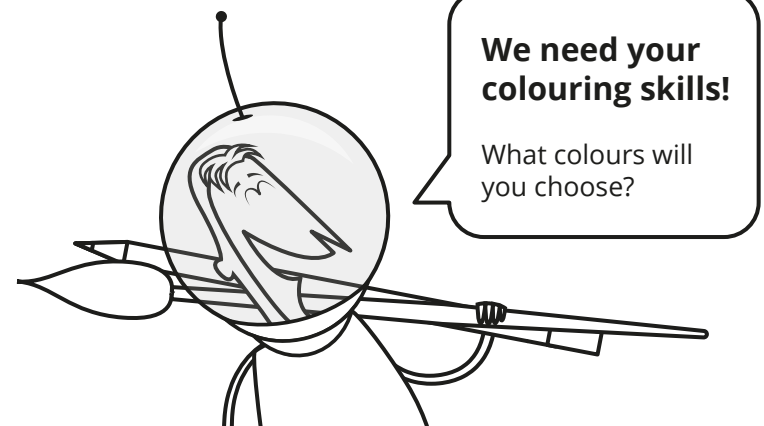
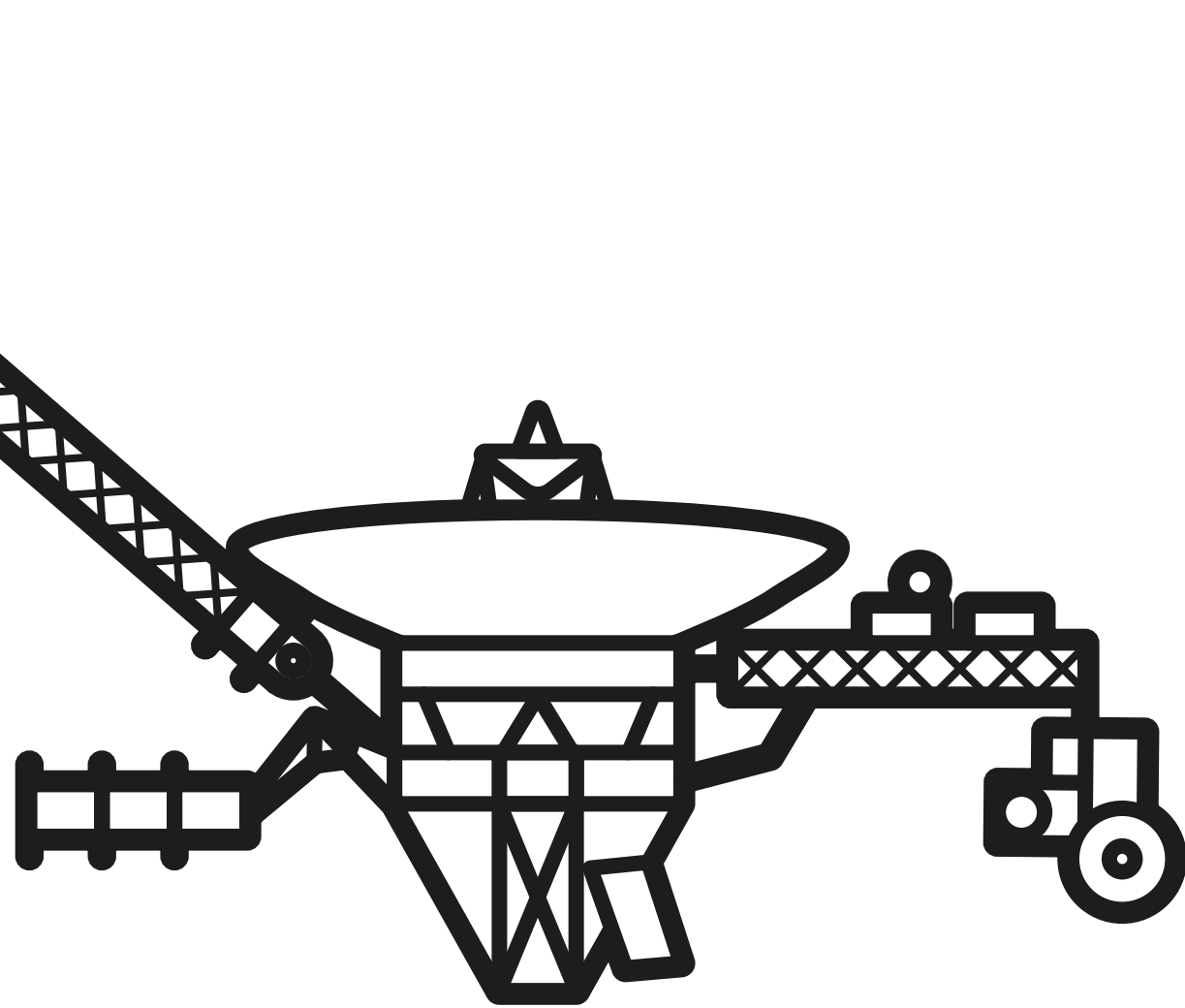
DID YOU KNOW?

Voyager

A **Golden Record** is included on both Voyager 1 and 2. This is a disc containing sounds and images of Earth. Just in case any passing aliens are interested!

Voyager 1 exited our Solar System on **25 August 2012** and continues to travel at **39,000 mph** away from our home.

Calling the Voyager probes takes a little time. For a signal travelling at the speed of light from Earth it takes **13 hours** to reach Voyager 2 and **16 hours** to reach Voyager 1!





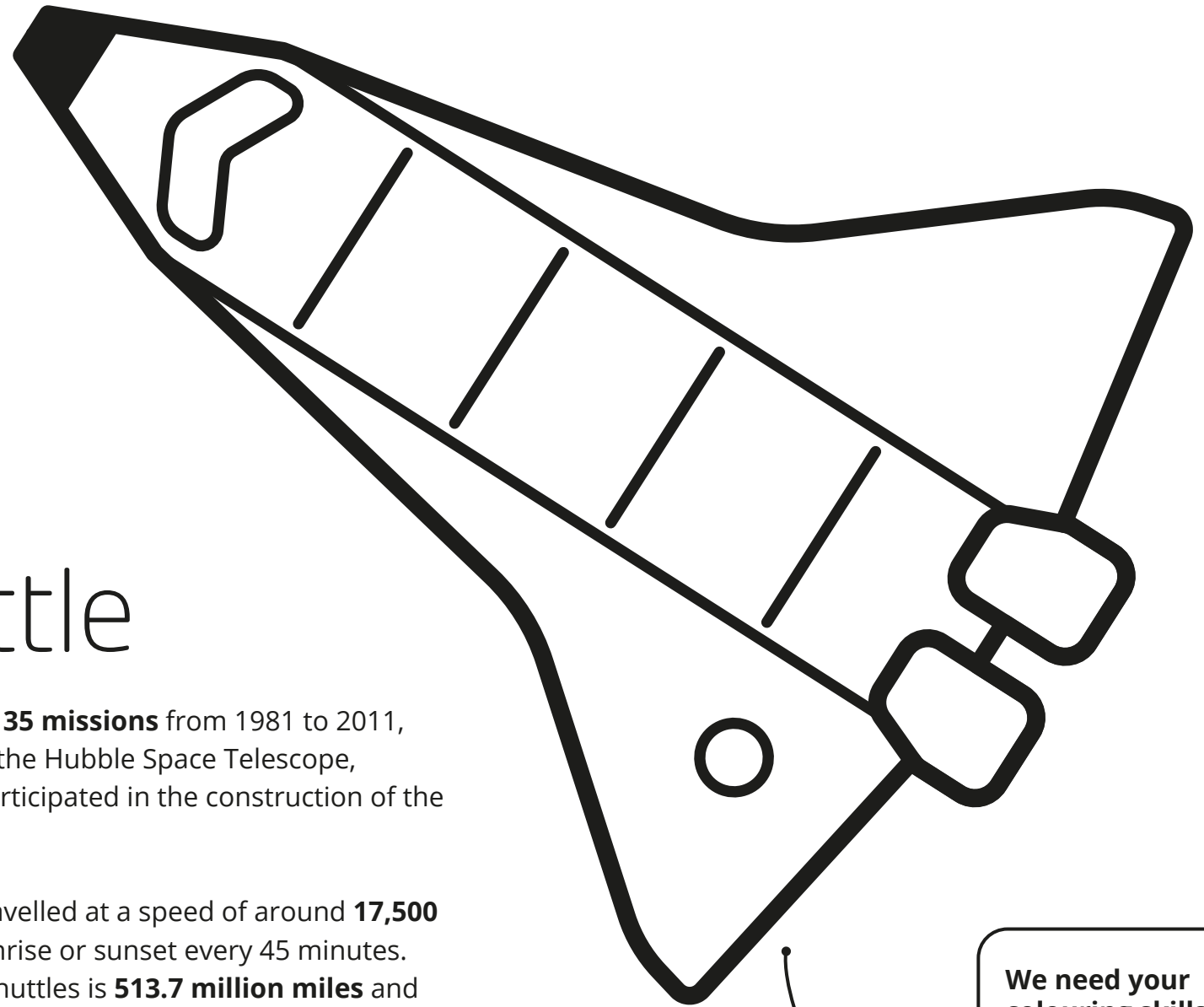
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DID YOU KNOW?

Space Shuttle

The NASA Space Shuttle flew a total of **135 missions** from 1981 to 2011, launching numerous satellites, probes, the Hubble Space Telescope, conducting science experiments and participated in the construction of the International Space Station.

- When in orbit, the Space Shuttle travelled at a speed of around **17,500 miles an hour** and would see a sunrise or sunset every 45 minutes.
- The total mileage of all the Space Shuttles is **513.7 million miles** and actually take us beyond Jupiter.
- The Space Shuttles are protected by 30,000 tiles that are constructed essentially of sand. The tiles can reach temperatures of up to **1,260C** and then be touch cool within a matter of minutes.





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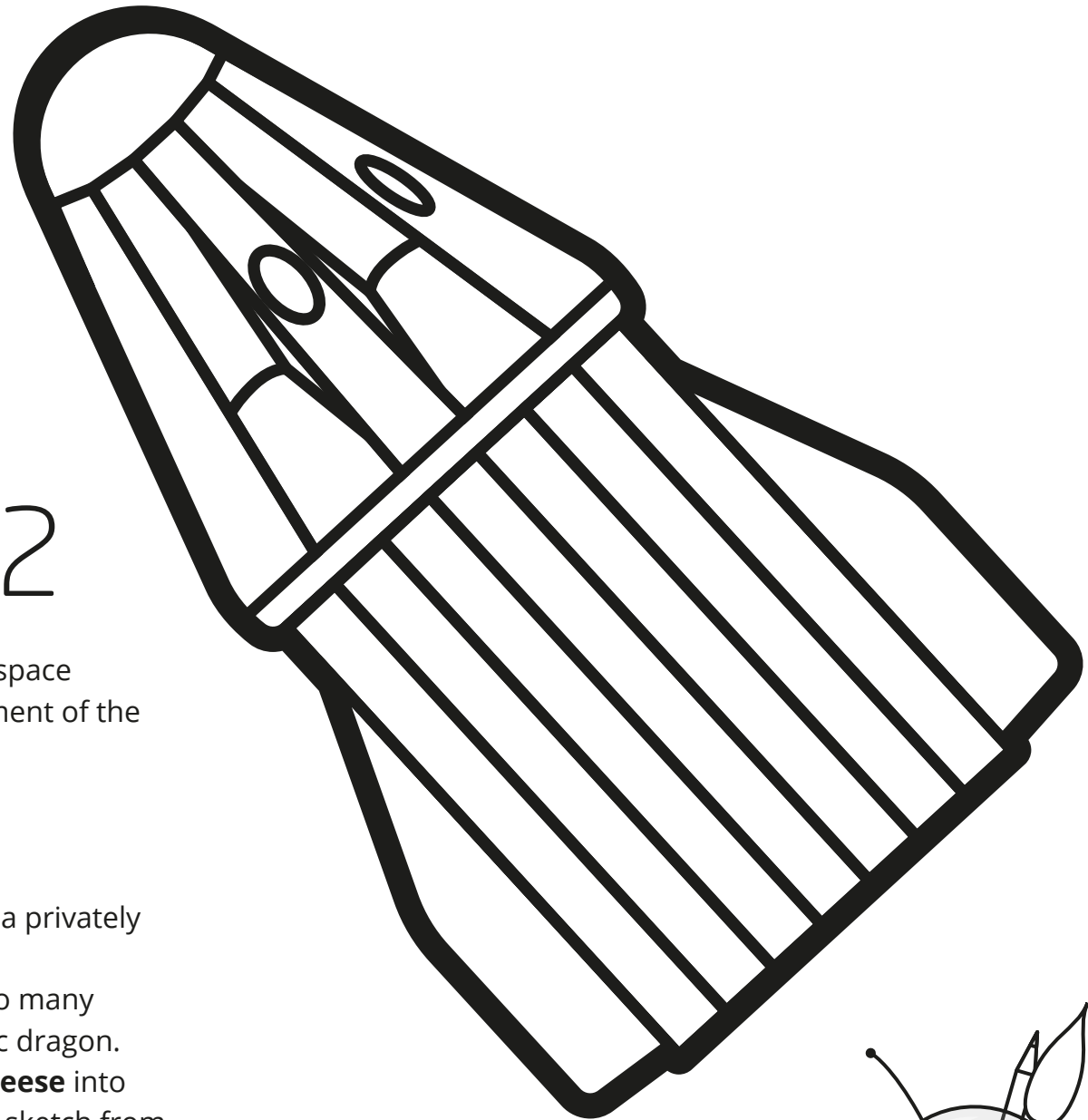
DID YOU KNOW?

SpaceX Dragon 2

May 27 2020 is the target launch date for the first crewed space mission to launch into orbit from U.S. soil since the retirement of the space shuttle in 2011.

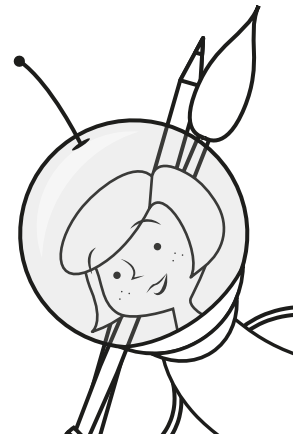
Falcon – the rocket / Dragon – the capsule

- In 2010, SpaceX became the **first company** to launch a privately built spacecraft into orbit and return it safely to Earth.
- Dragon is named after "Puff the Magic Dragon", due to many people thinking the idea impossible, much like a magic dragon.
- The first Dragon to be launched carried a **wheel of cheese** into orbit. Apparently, this was in honour of a very famous sketch from Monty Python's Flying Circus.
- The Falcon rockets are named after the **Millennium Falcon** from Star Wars.



We need your colouring skills!

What colours will you choose?





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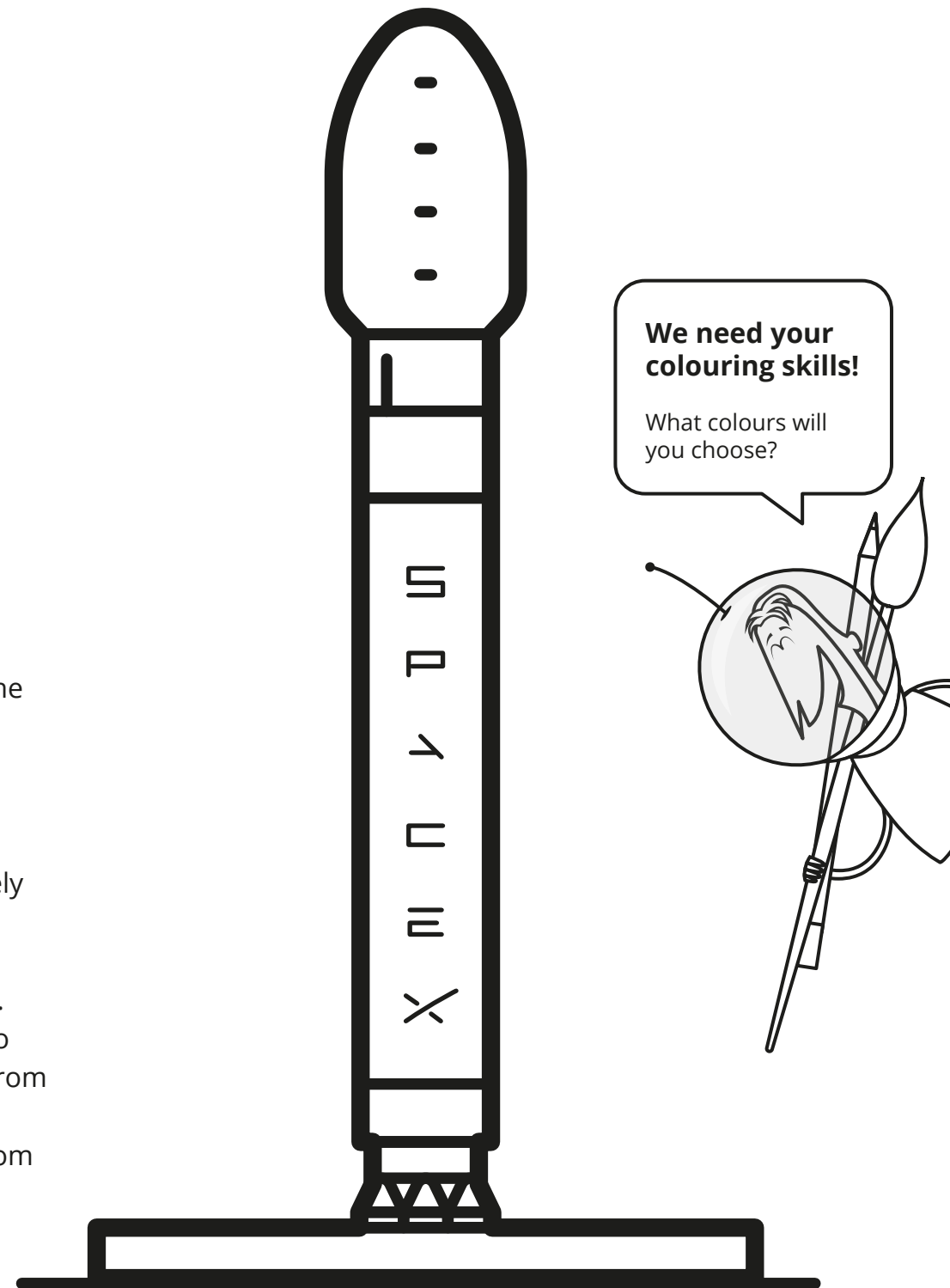
DID YOU KNOW?

SpaceX Falcon 9

May 27 2020 is the target launch date for the first crewed space mission to launch into orbit from U.S. soil since the retirement of the space shuttle in 2011.

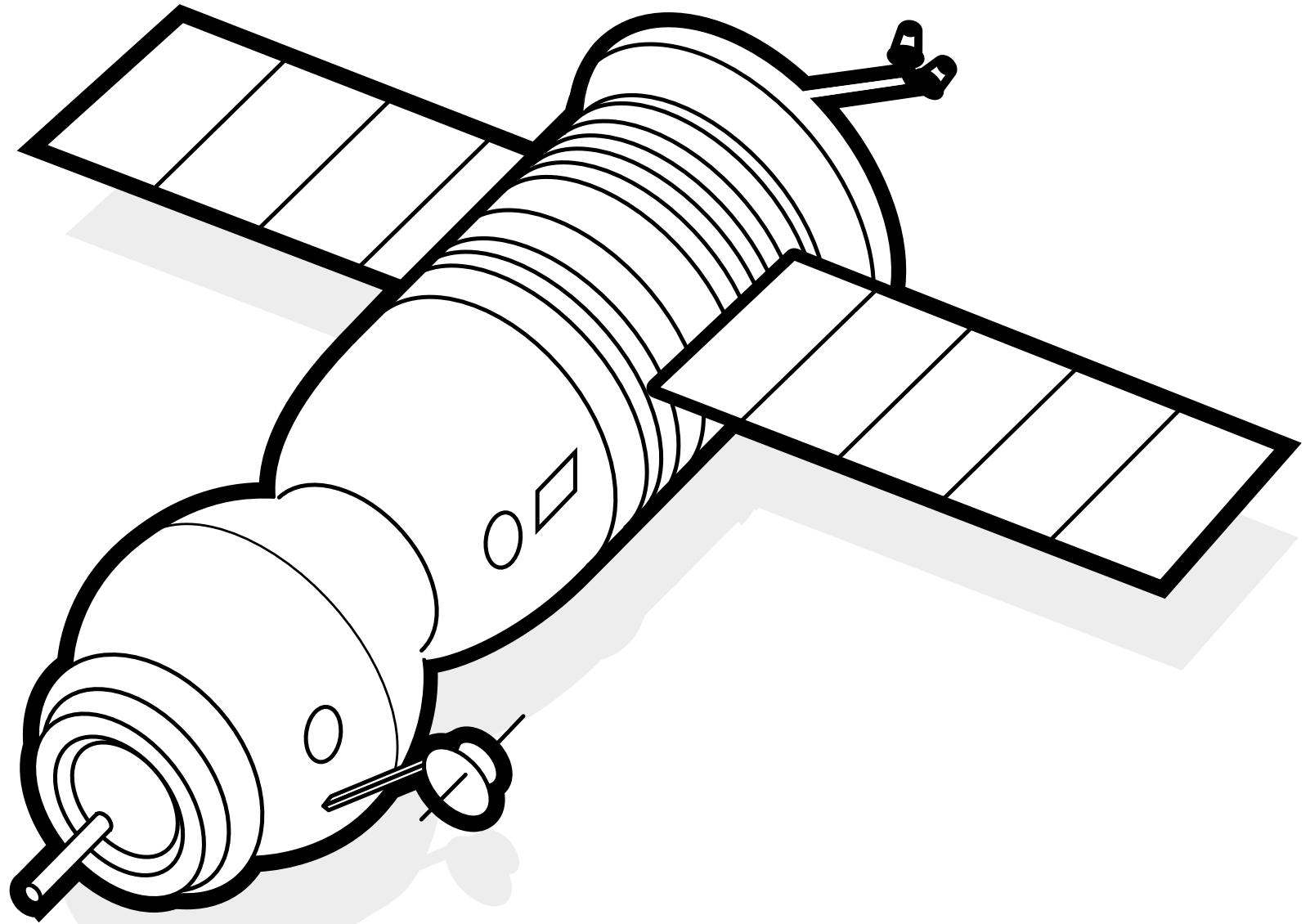
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DID YOU KNOW?

Soyuz

Soyuz is the longest running human spaceflight system. It has been operational for over 40 years and has launched over 1600 times!

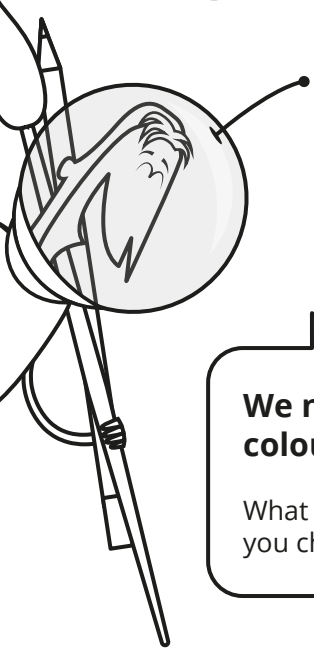
Soyuz means 'Union' and it was used as the official end of the space race as part of the Apollo-Soyuz Test project.

The Soyuz capsule has over 30 designs each for different jobs.

The Soyuz rocket's four boosters, separate from the rocket during takeoff in an iconic pattern called the Korolev Cross.

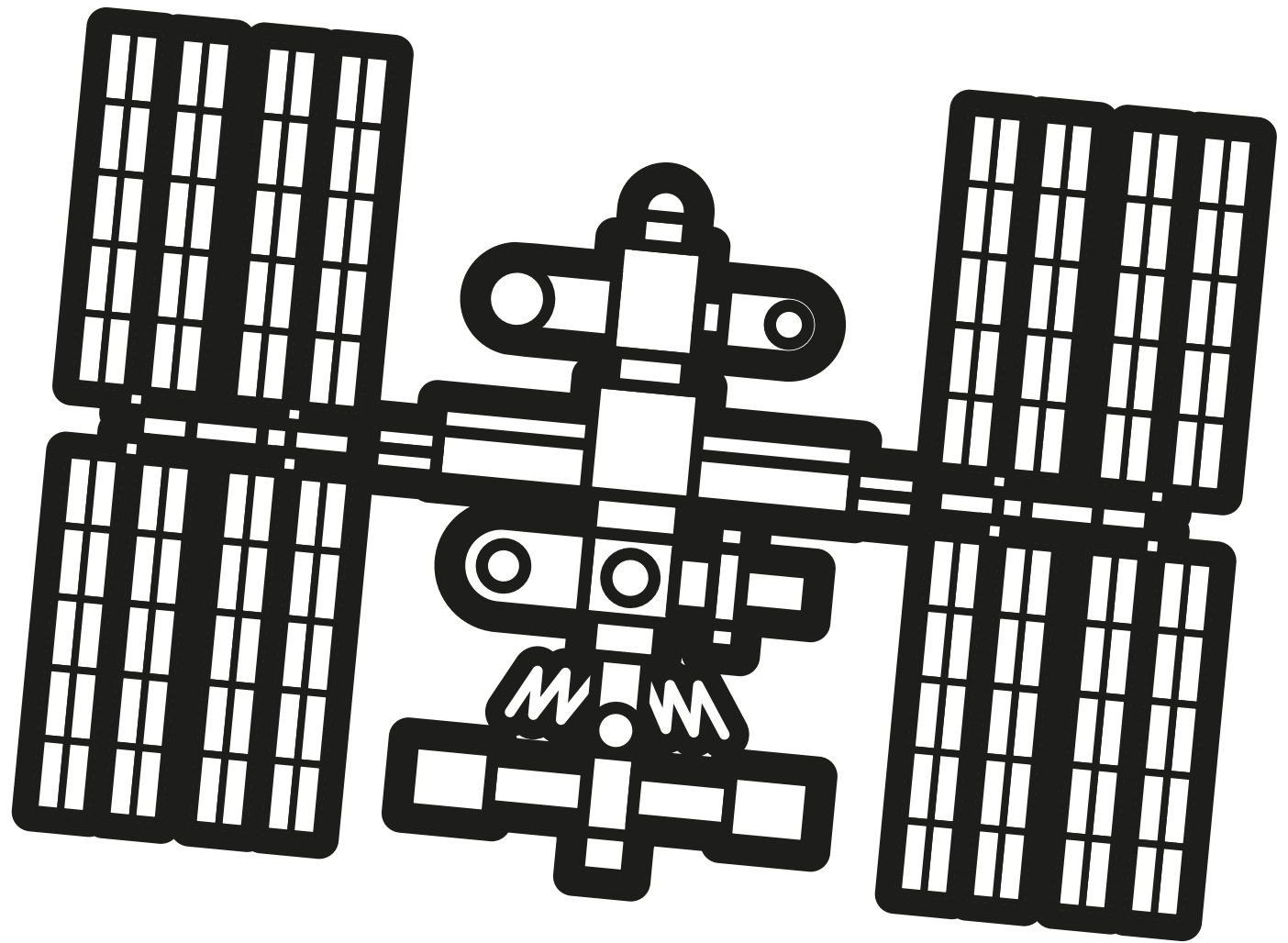


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colouring skills!**

What colours will
you choose?



DID YOU KNOW?

International Space Station

In 24 hours, the space station makes 16 orbits of Earth, traveling through 16 sunrises and sunsets.

The living and working space in the station is larger than a six-bedroom house (and has six sleeping quarters, two bathrooms, a gym, and a 360-degree view bay window).

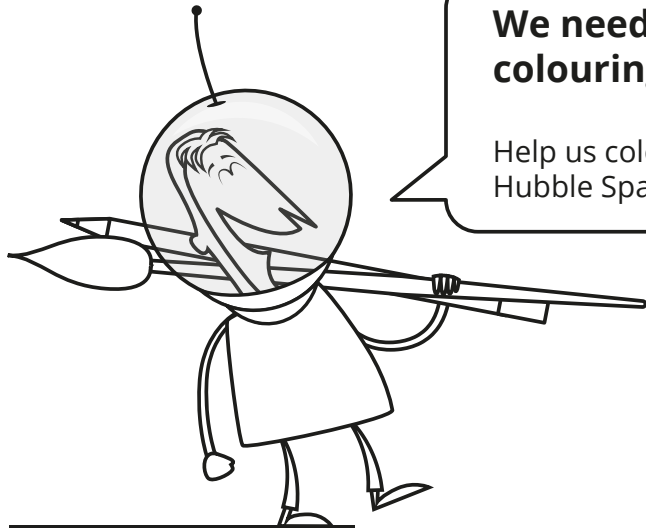
The space station has been continuously occupied since November 2000.

Made up of hundreds of major and minor components, the ISS is the largest crewed object ever put into space.

The space station travels an equivalent distance to the Moon and back in about a day.



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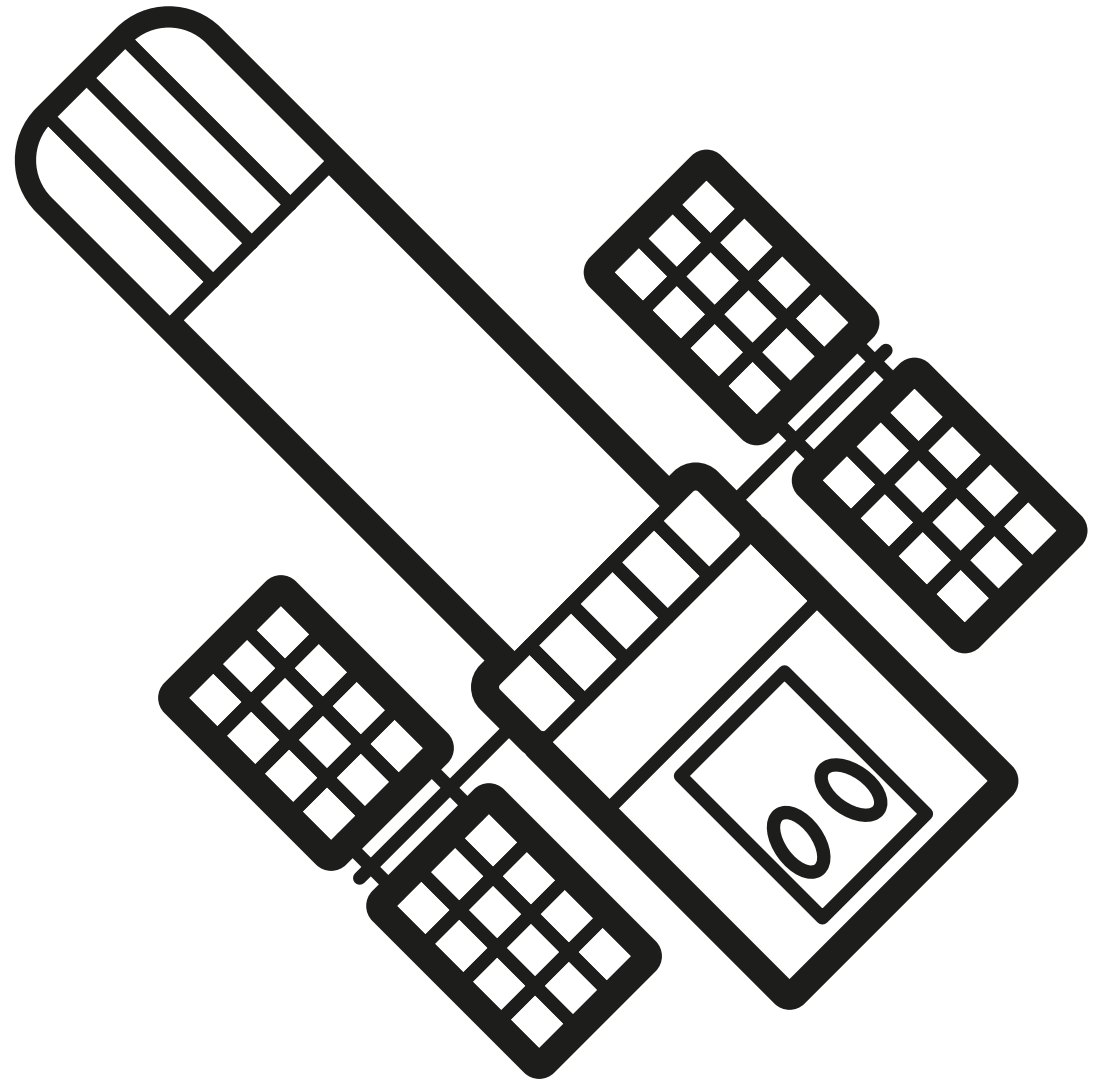
**We need your
colouring skills!**

Help us colour in the
Hubble Space Telescope.

DID YOU KNOW?

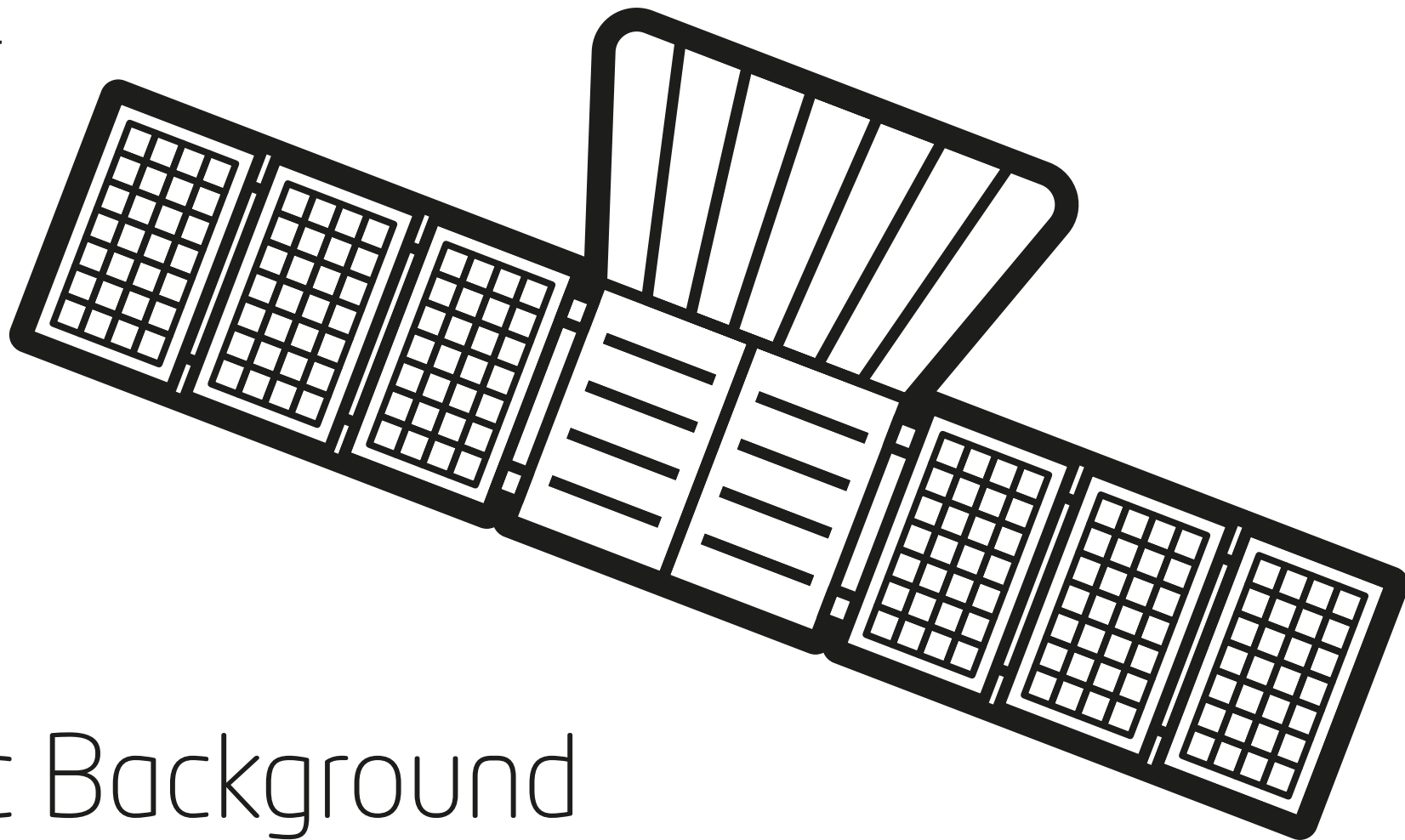
Hubble Space Telescope

After 30 years, this space telescope is still providing us with stunning images and information about our Universe. It has provided most of the well-known images of our Universe, from galaxies and nebula to the death of stars.





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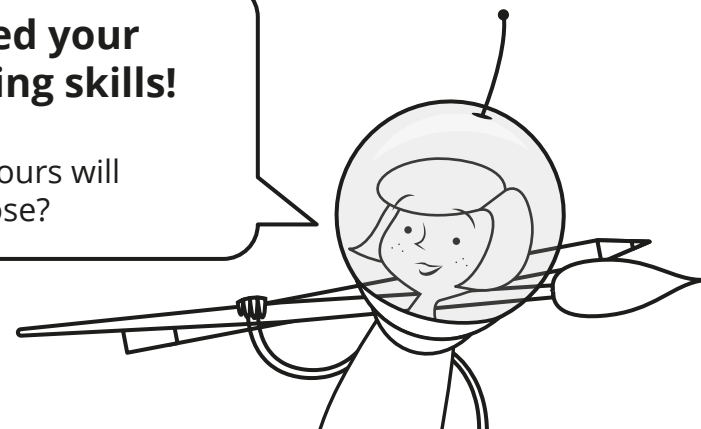
DID YOU KNOW?

Cosmic Background Explorer (COBE)

Launched in 1989, this telescope studied the Cosmic Microwave Background Radiation of our Universe – and provided great evidence to support the Big Bang theory of our Universe.

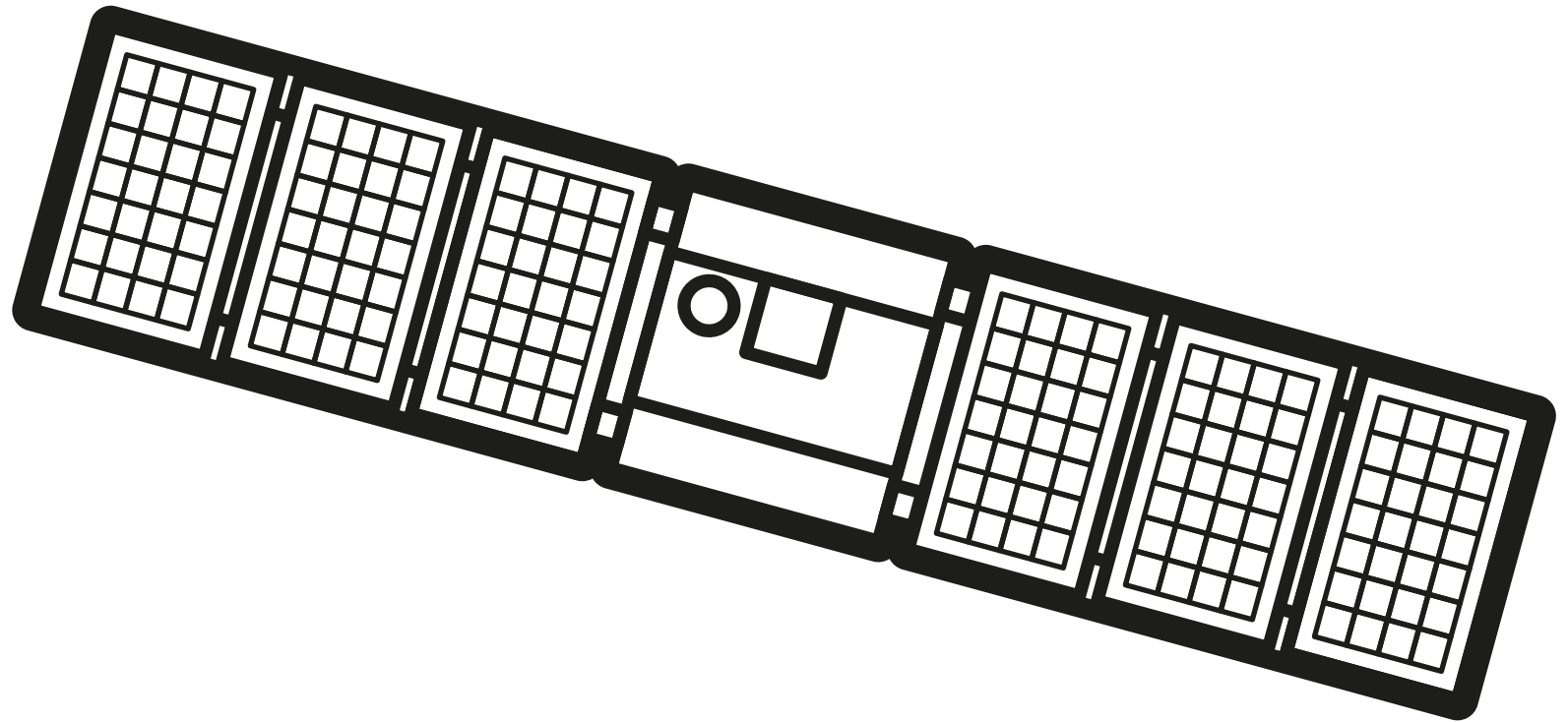
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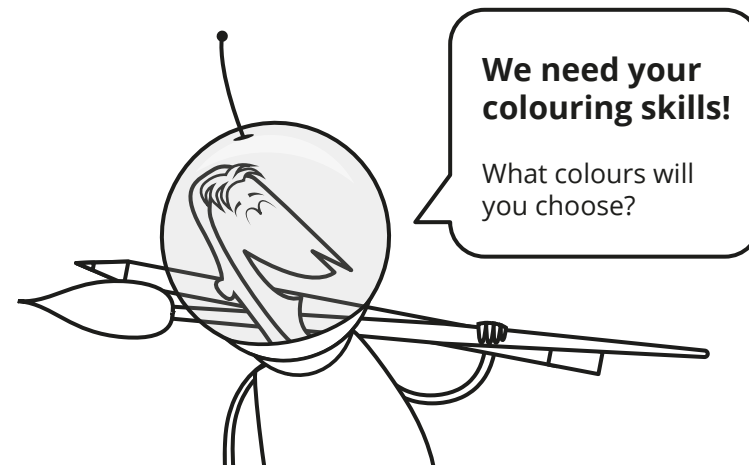
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DID YOU KNOW?

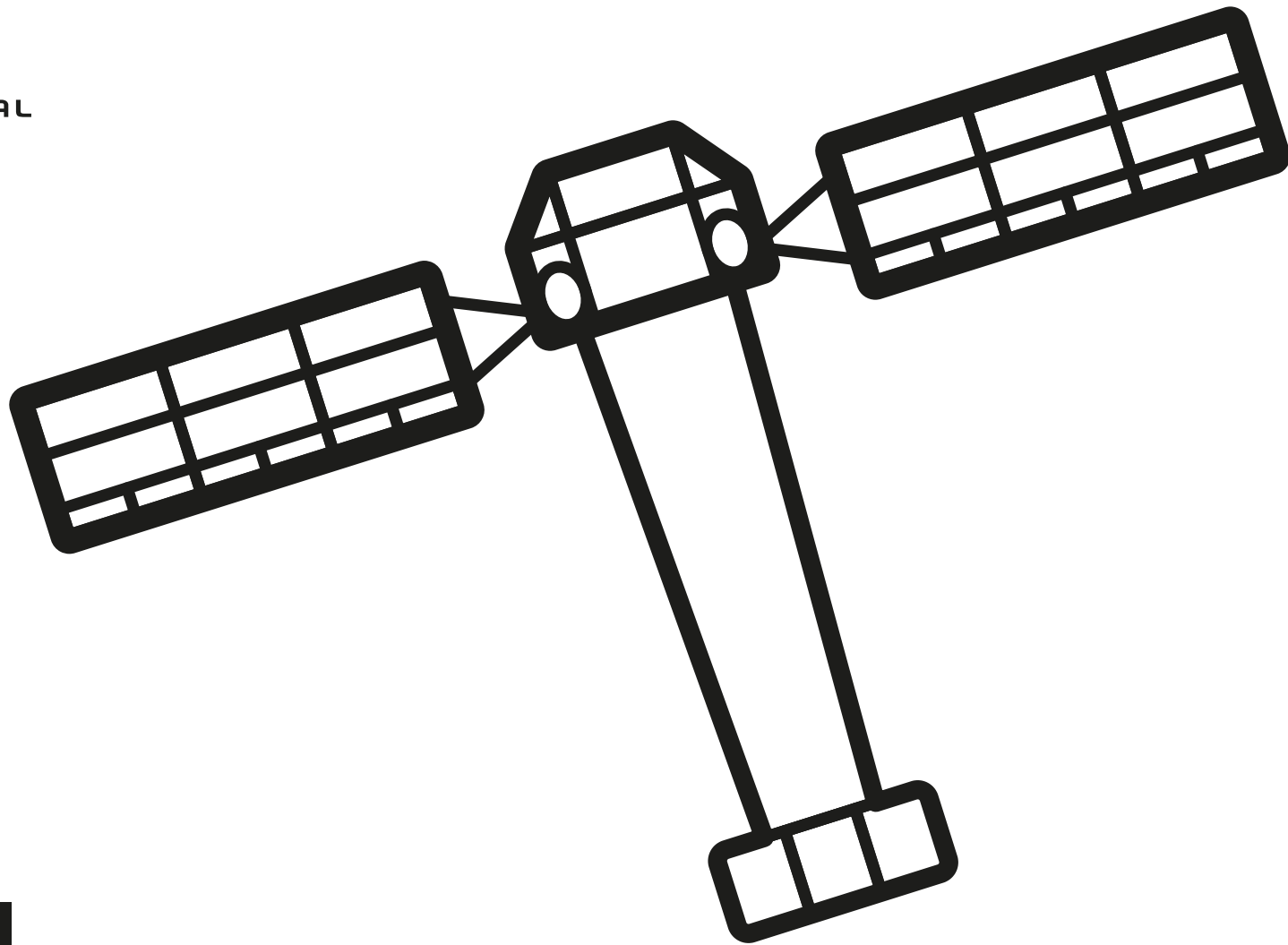
Hisaki

This Japanese satellite was the first ever satellite designed specifically to observe the atmospheres planets in our solar system – particularly Venus, Mars and Jupiter.





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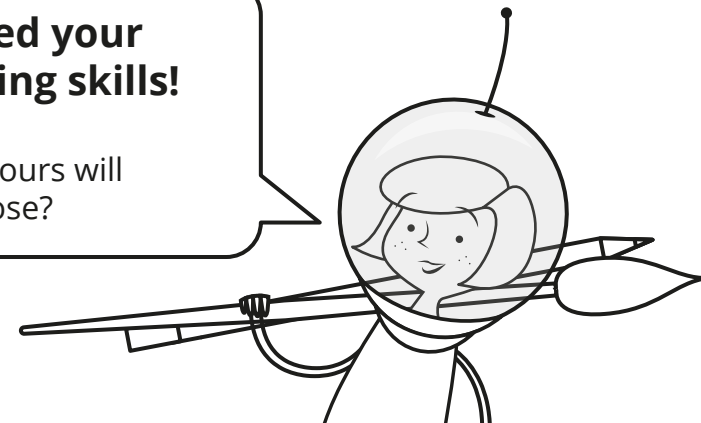
DID YOU KNOW?

XMM Newton

This European space telescope is investigating distant interstellar X-ray sources. It was the first telescope to allow scientists to measure the spin rate of a black hole!

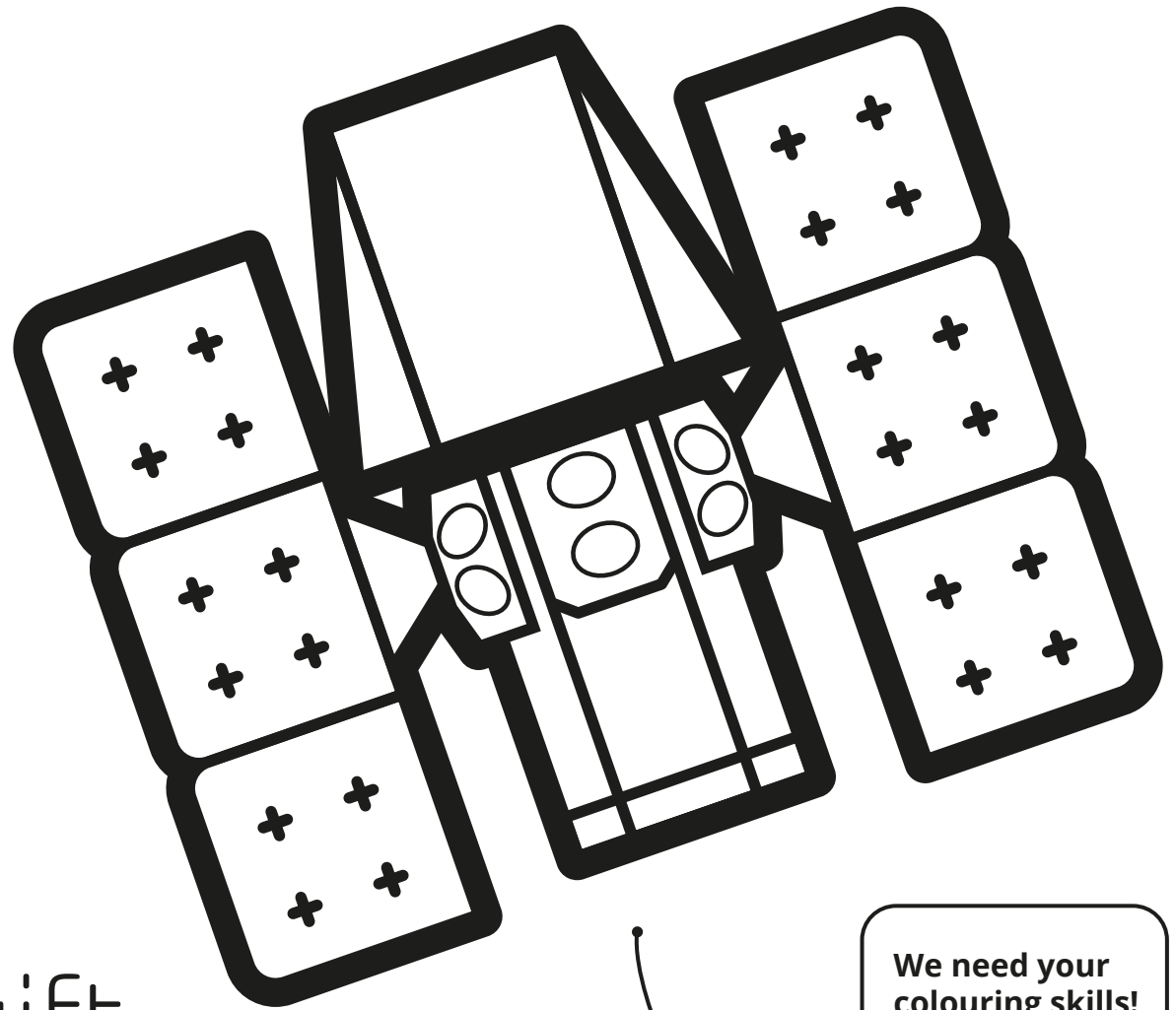
**We need your
colouring skills!**

What colours will
you choose?





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DID YOU KNOW?

Neil Gehrels Swift Observatory

This NASA space observatory is hunting for gamma ray bursts – high energy explosions believed to be produced by supernovae!

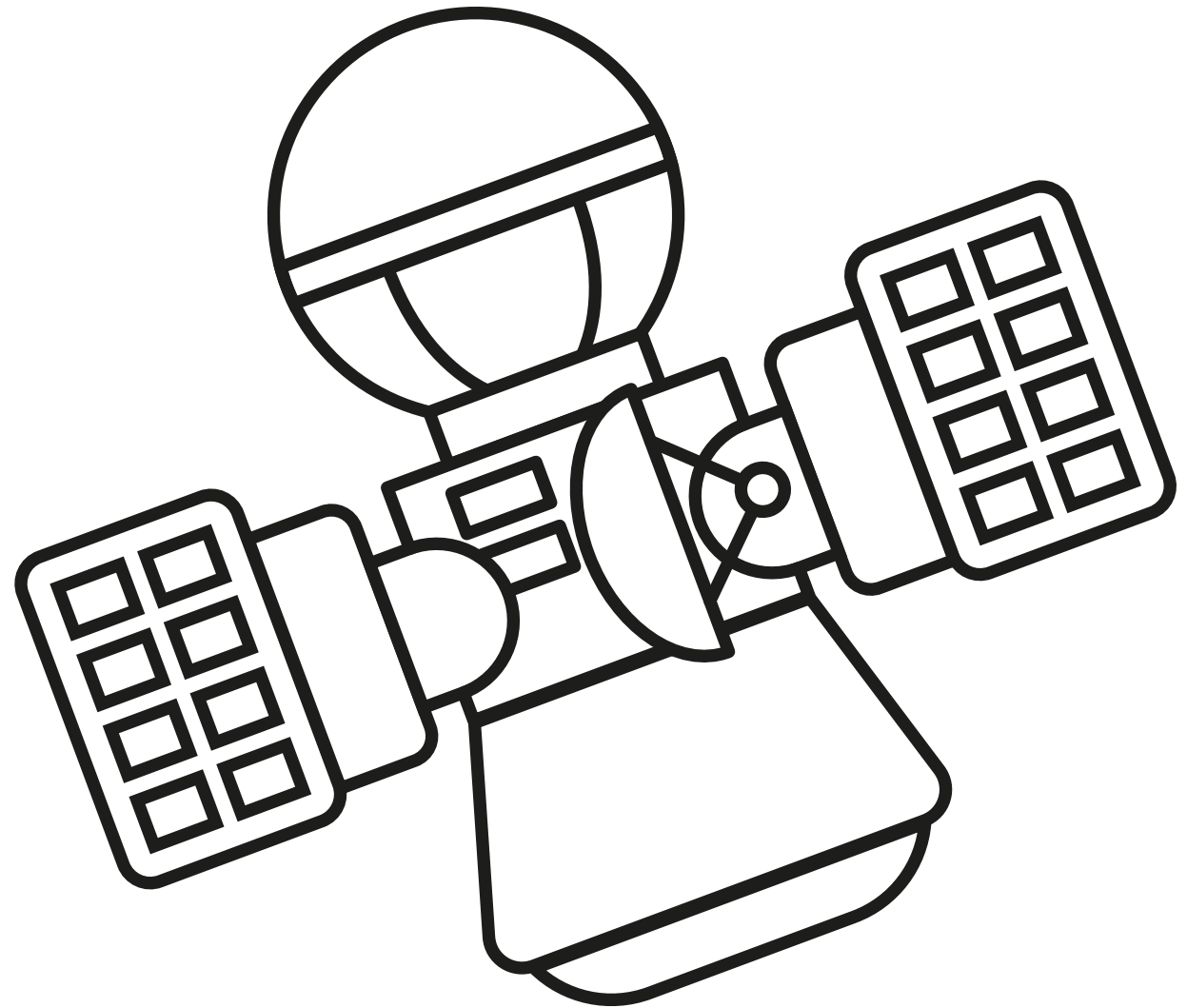


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What colours will
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DID YOU KNOW?

Venera

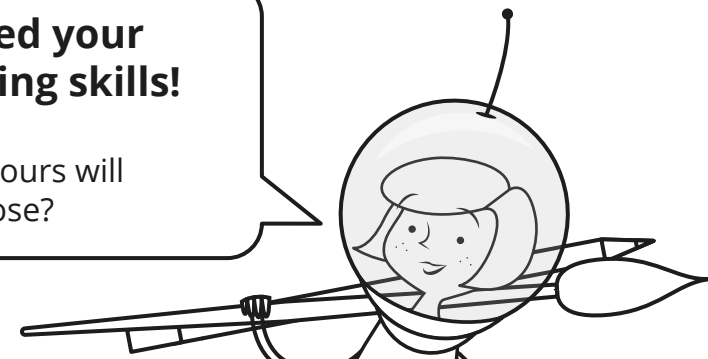
Between 1961 and 1984 the Venera program sent a series of space probes to gather information about the planet Venus.

Venera means Venus in Russian.

On 01 March 1966 Venera 3 became the first spacecraft to reach the surface of another planet.

**We need your
colouring skills!**

What colours will
you choose?



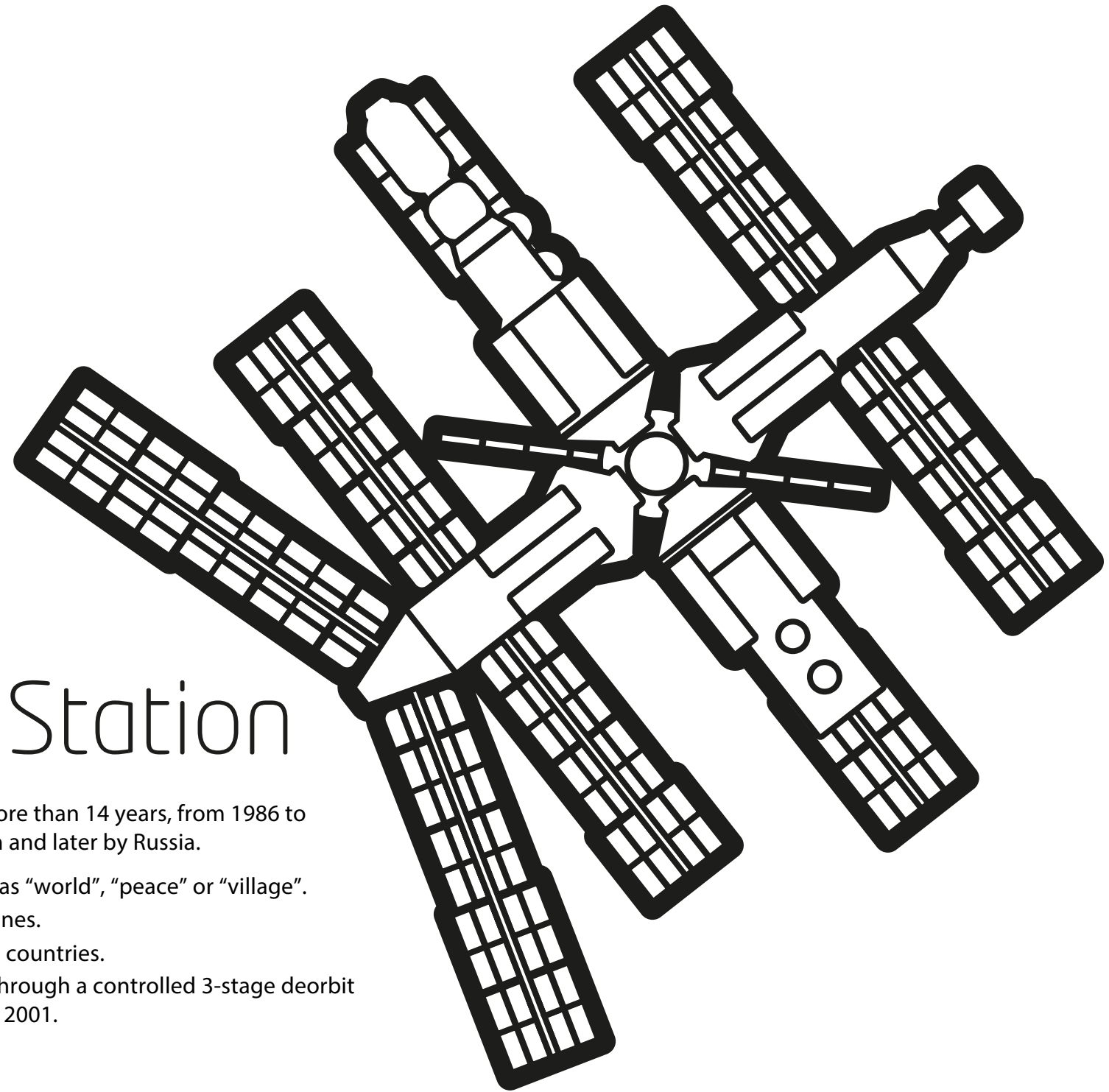


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colouring skills!**

What colours will
you choose?



DID YOU KNOW?

Mir Space Station

The Mir space station orbited earth for more than 14 years, from 1986 to 2001. It was operated by the Soviet Union and later by Russia.

- The word "Mir" is sometimes translated as "world", "peace" or "village".
- It had an in-orbit mass of 130 to 140 tonnes.
- It hosted more than 100 people from 12 countries.
- Mir re-entered the Earth's atmosphere through a controlled 3-stage deorbit process, landing on the Pacific Ocean in 2001.



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DID YOU KNOW?

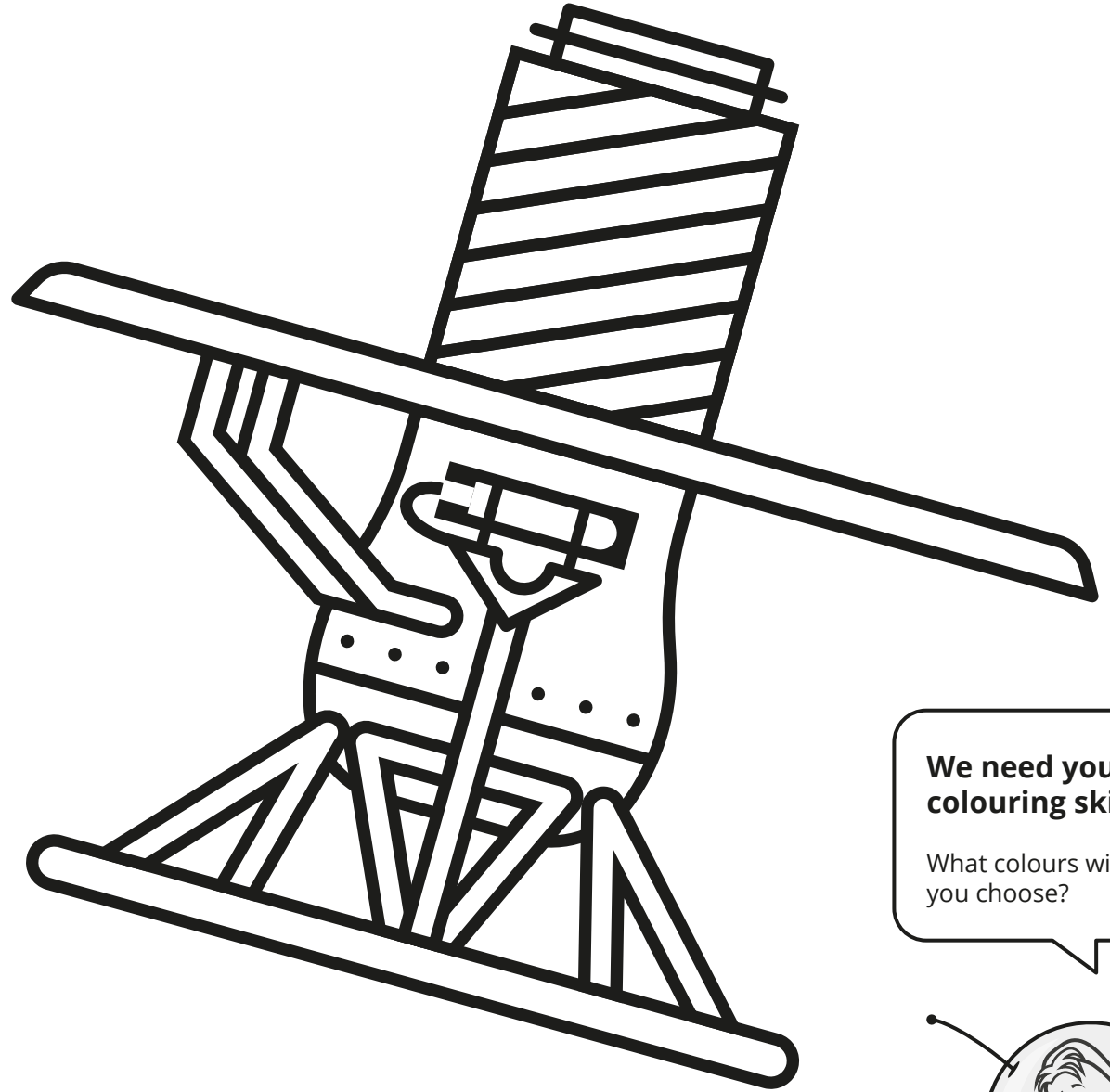
Venera 9

Venera 9 consisted of an orbiter and a lander.

It was launched on 08 June 1975.

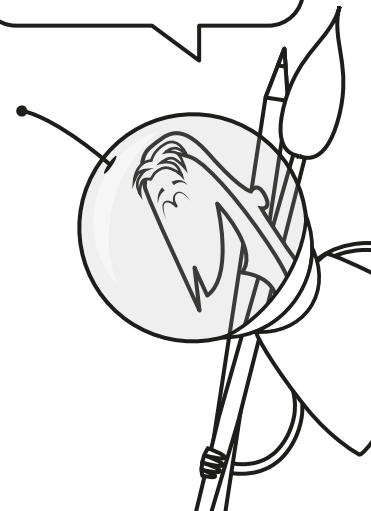
The orbiter was the first spacecraft to orbit Venus.

During its 53 minutes of transmissions from the surface, Venera 9 took the very first picture of the Venusian surface.



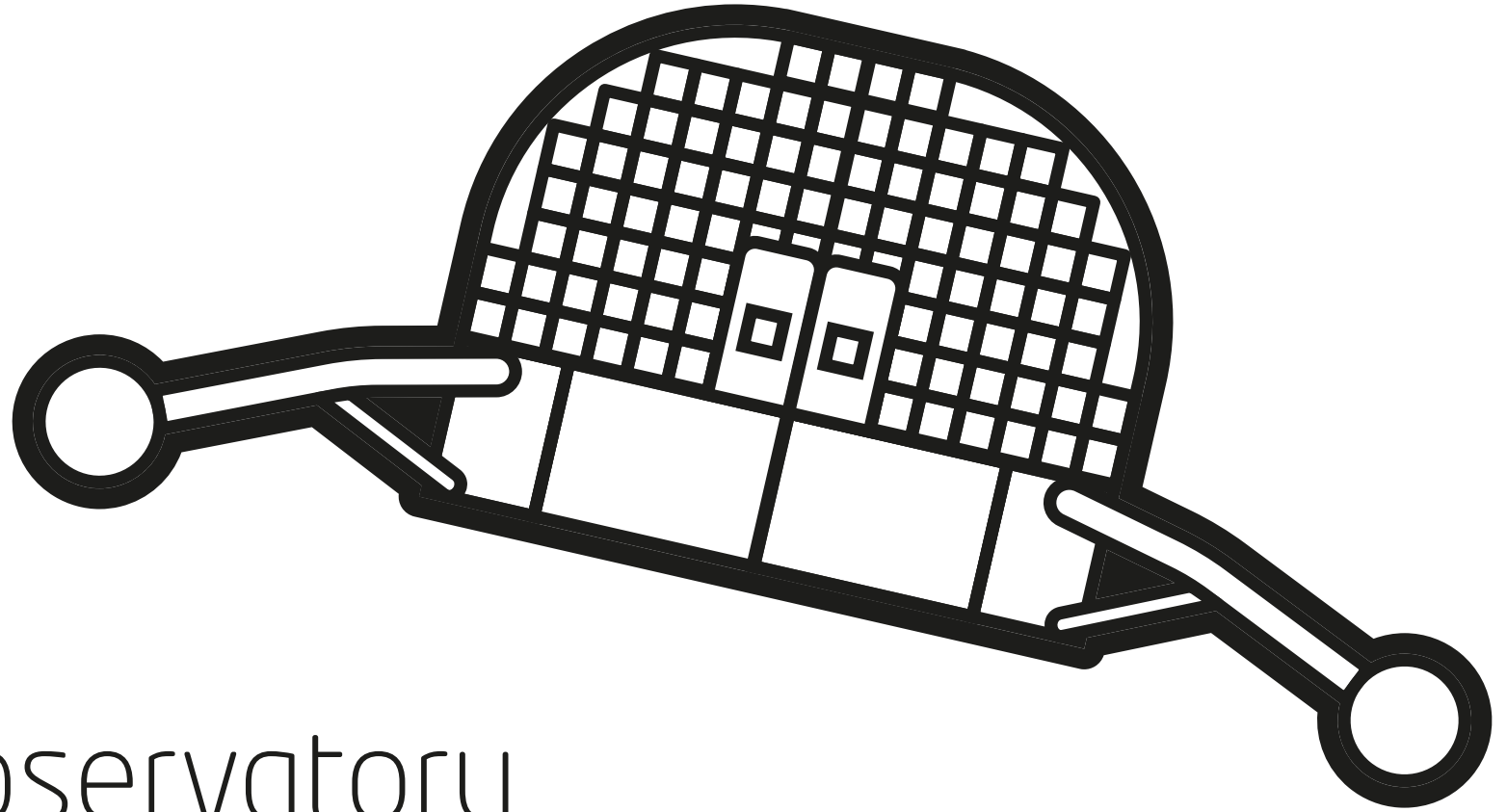
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What colours will
you choose?





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DID YOU KNOW?

Orbiting Solar Observatory

The Orbiting Solar Observatory (OSO) program successfully launched 8 space telescopes between 1962 and 1975, primarily intended to study the Sun, though they also included important non-solar experiments.

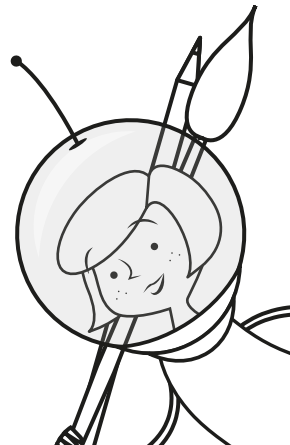
In 1964 OSO-4 included X-ray equipment from the University of Leicester. This launch began an unbroken period of 30 years' duration, with Leicester-built X-ray instruments operating in orbit.

In 1969 NASA launched OSO-5. Again, the X-ray telescope on board was from the University of Leicester and for the next six years provided daily images of solar activity.

You can see OSO at the National Space Centre.

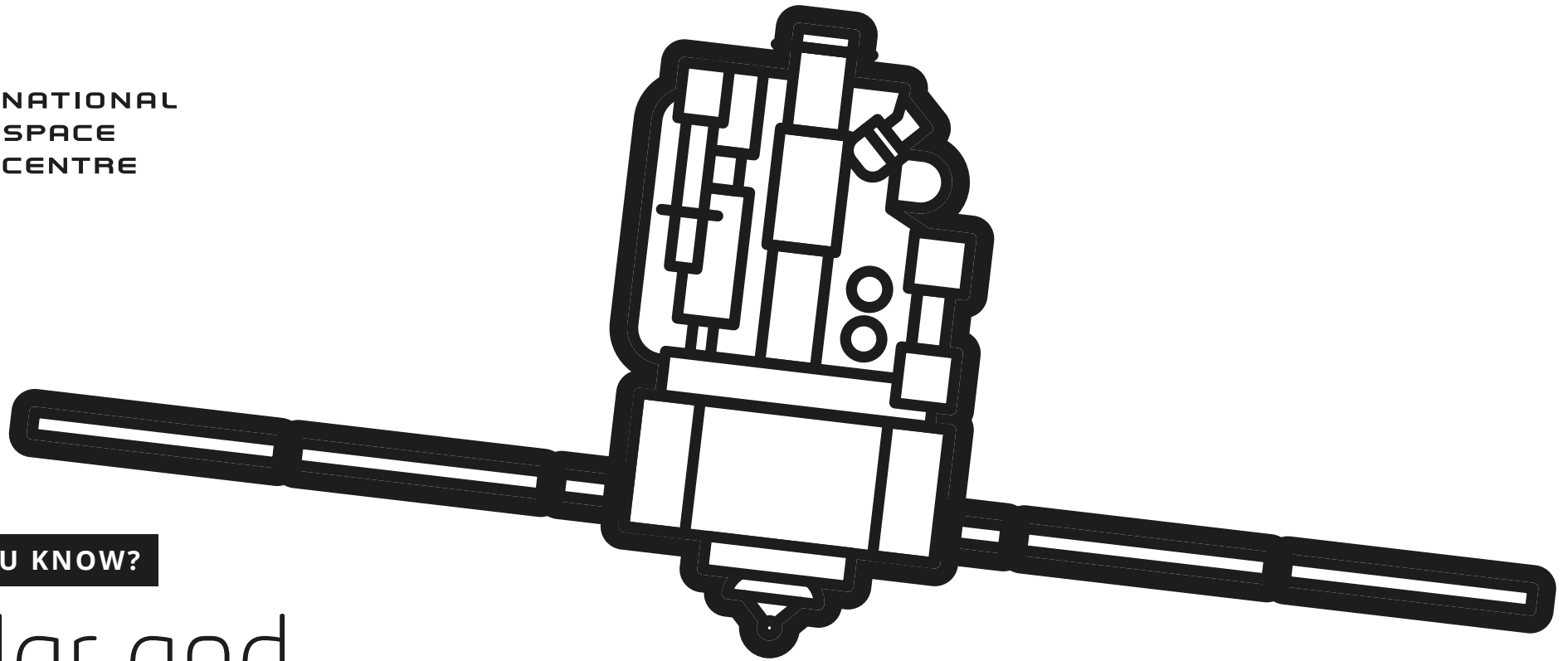
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What colours will you choose?





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DID YOU KNOW?

Solar and Heliospheric Observatory

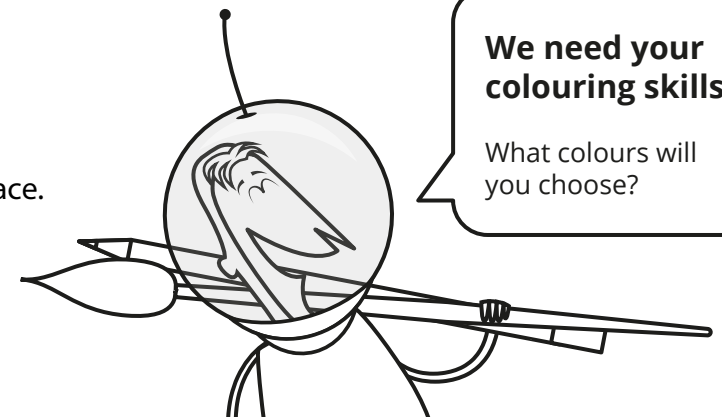
The Solar and Heliospheric Observatory (SOHO) was launched in 1995, to study the Sun.

It is a joint project between the European Space Agency (ESA) and NASA.

As well as observing the Sun, it has discovered over 3,000 comets.

Originally planned as a two-year mission, SOHO continues to operate after over 25 years in space.

You can see a model of SOHO at the National Space Centre.

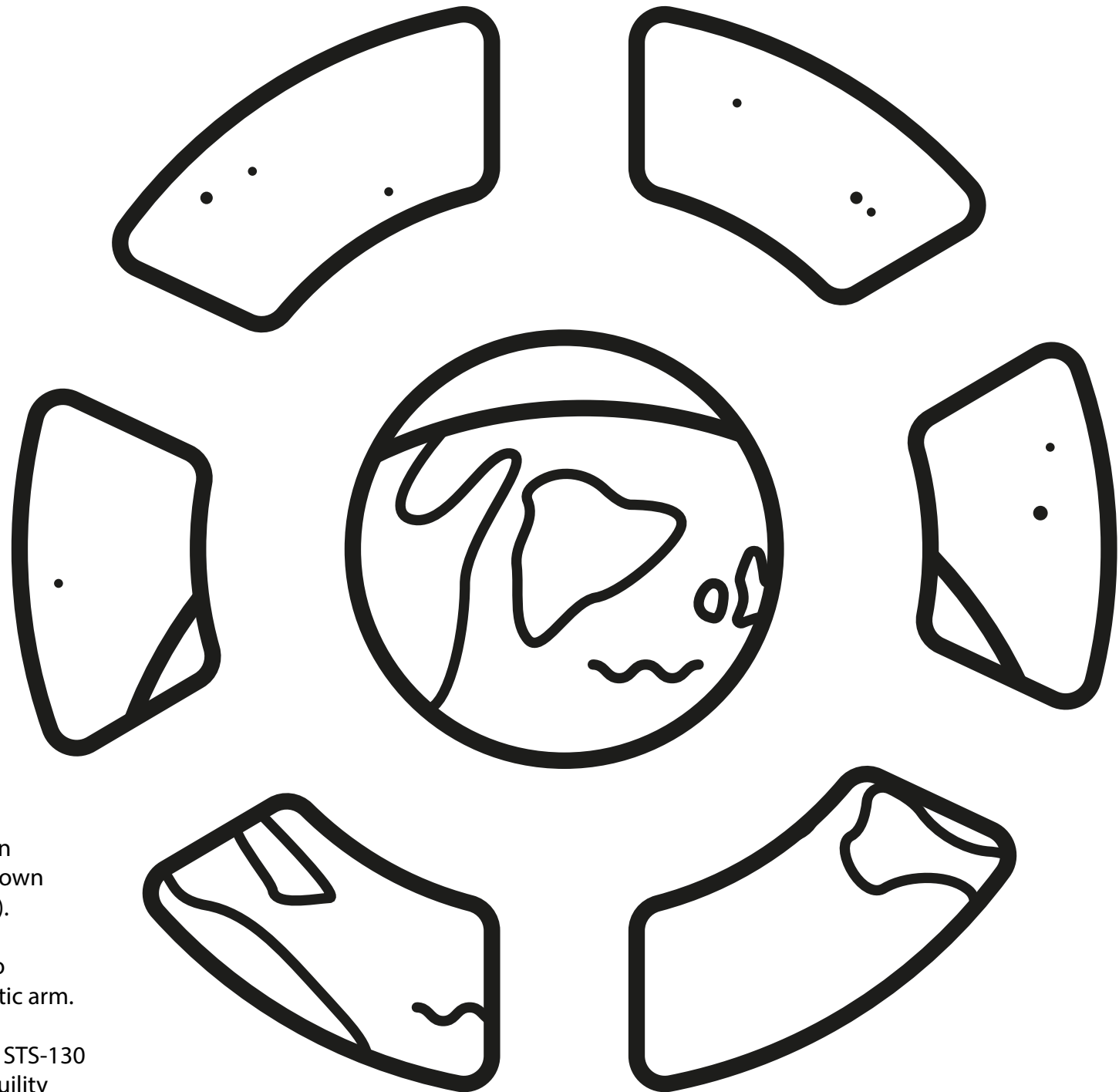


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DID YOU KNOW?

ISS Cupola

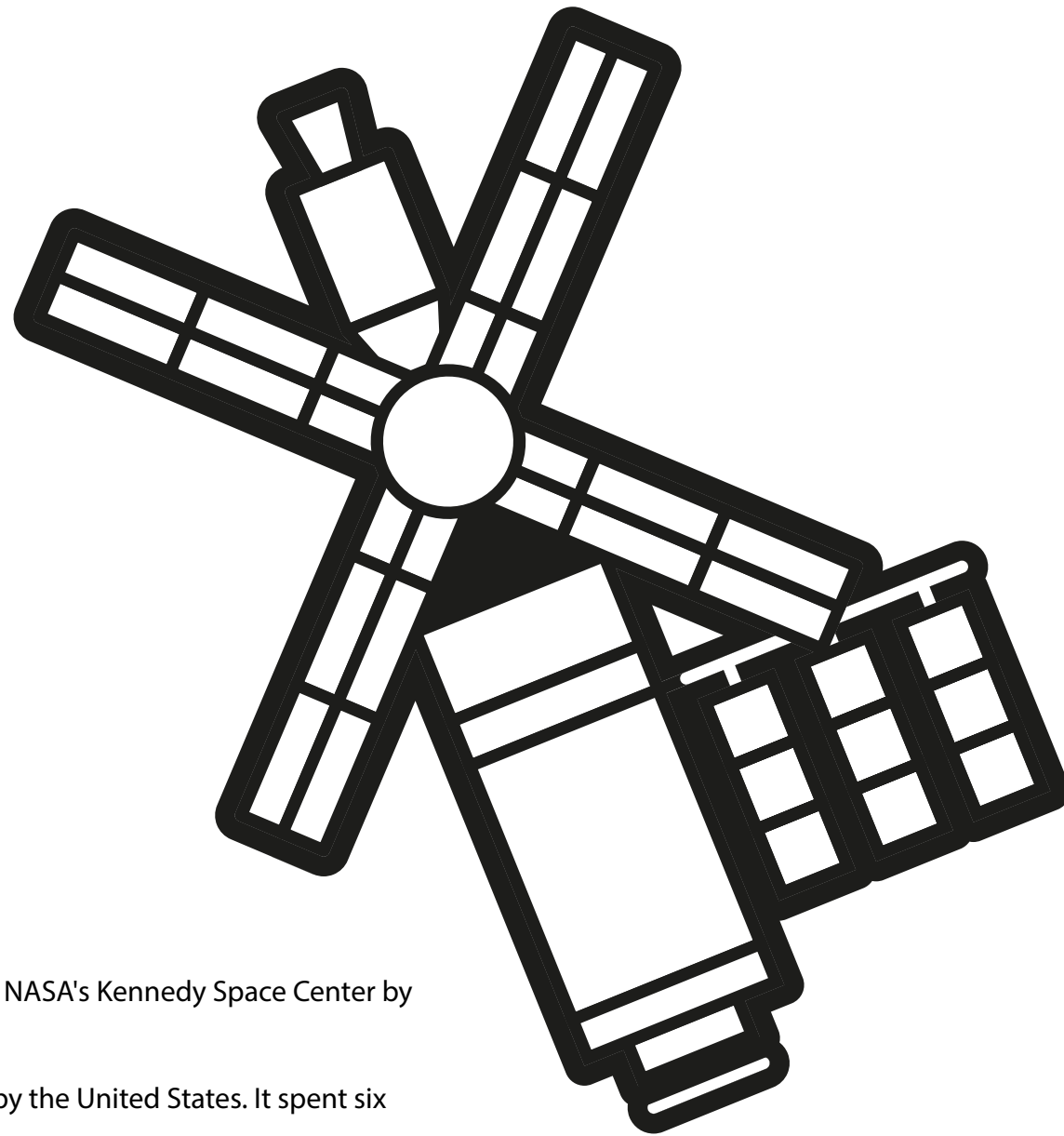
The Cupola is made up of six trapezoidal side windows and a circular top window of 80 cm in diameter, making it the largest window ever flown in space (providing a panoramic view of Earth).

It's not just for looking at Earth, it was made so astronauts can control the Canadarm2, a robotic arm.

It was launched aboard Space Shuttle mission STS-130 on 8 February 2010 and attached to the Tranquility (Node 3) module.



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DID YOU KNOW?

Skylab

Skylab was launched on May 14, 1973, from NASA's Kennedy Space Center by a Saturn V launch vehicle.

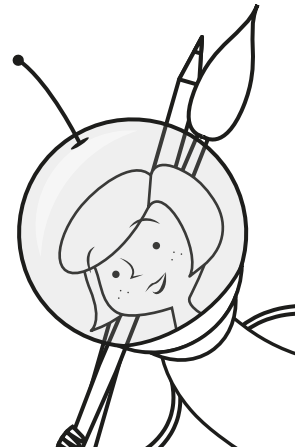
Skylab was the first space station operated by the United States. It spent six years orbiting Earth.

Three crews occupied the workshop for a total of 171 days

Astronauts aboard the station conducted 270 experiments in biomedical and life sciences, solar astronomy, Earth observations and materials processing.

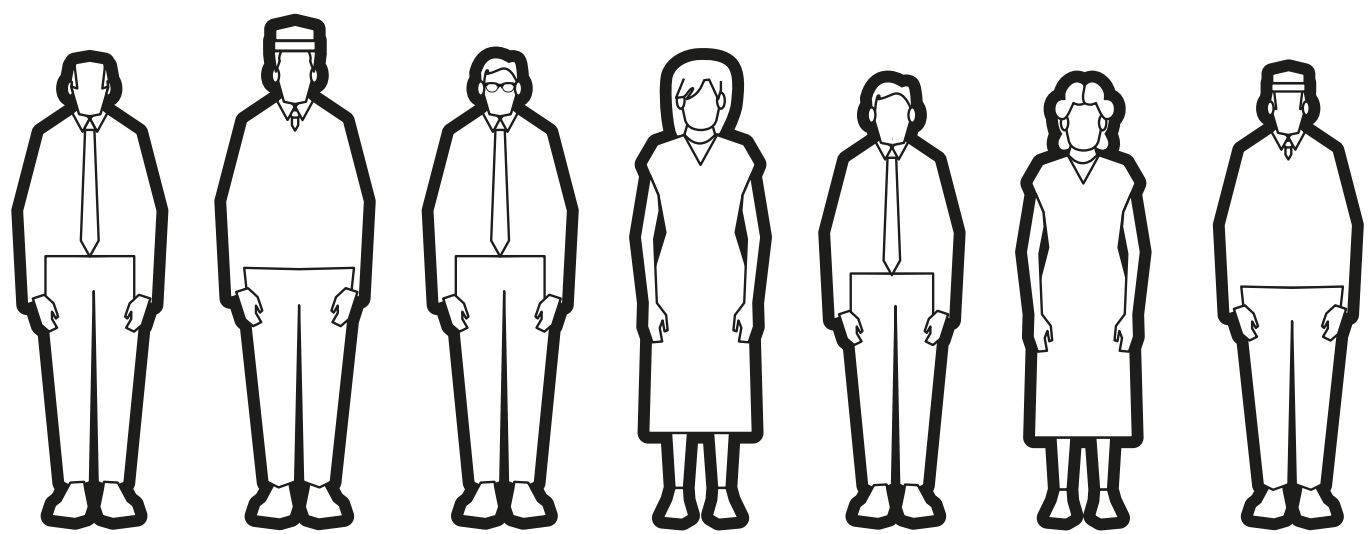
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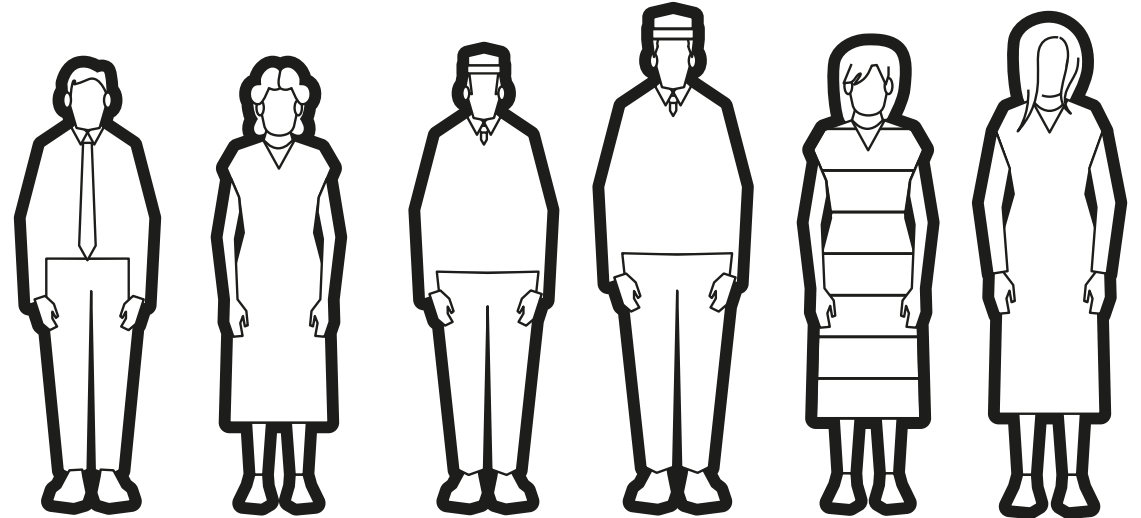


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DID YOU KNOW?

Hidden Figures: The Team Who Got Us To The Moon

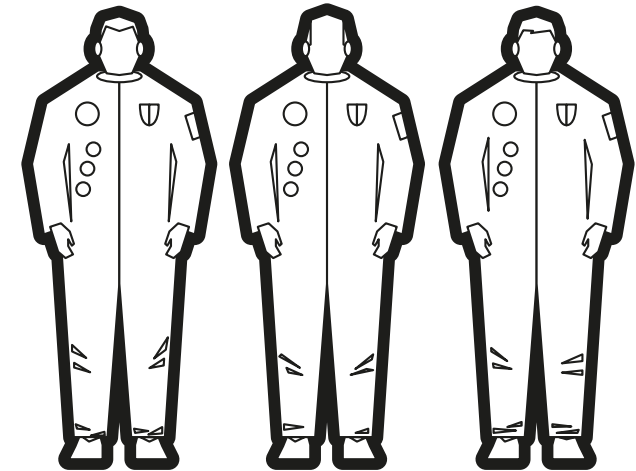


12 astronauts walked on the Moon.

24 astronauts made the trip from the Earth to the Moon.

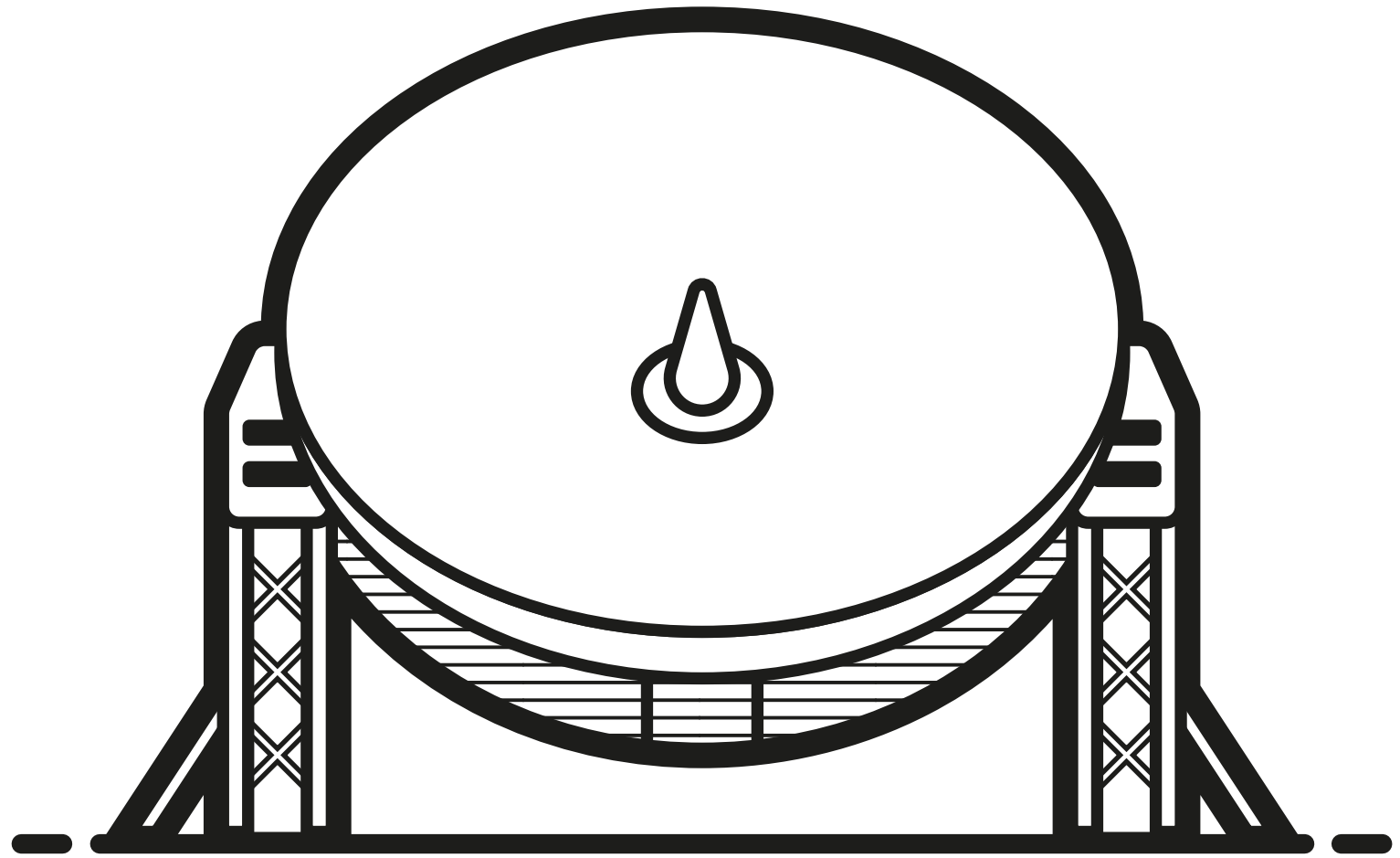
NASA estimates that a total of 400,000 people were involved in the Apollo program.

The number includes everyone from astronauts to mission controllers, contractors to caterers, engineers, scientists, nurses, doctors, mathematicians, programmers and seamstresses.





NATIONAL
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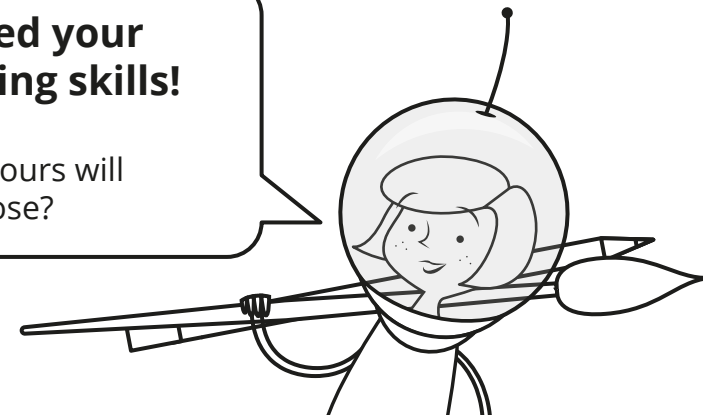
DID YOU KNOW?

Lovell Telescope

Sited at the Jodrell Bank Observatory in Cheshire, this 76.2m across telescope was once the largest of its kind. As well as helping to unlock the secrets of our Universe it was used to track space probes including missions to the Moon and Mars!

**We need your
colouring skills!**

What colours will
you choose?





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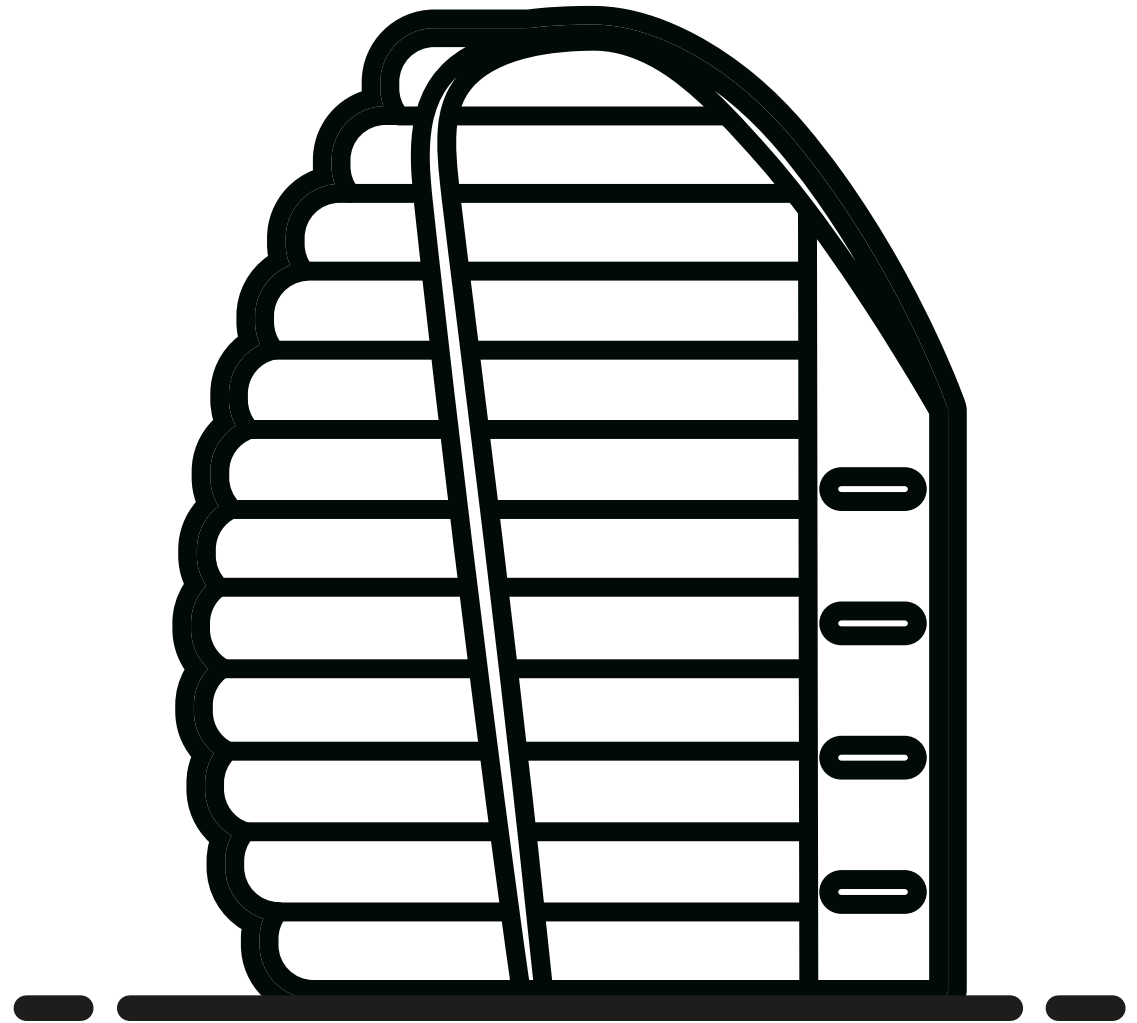
DID YOU KNOW?

The Rocket Tower

The Rocket Tower is home to **Blue Streak** and **Thor Able rockets**, as well as one of only three pieces of the Moon on display in the UK.

It's 42 metres tall and the transparent 'pillows' are made from **high-tech ETFE**, which helps manage light and heat, making the building more sustainable.

It was designed by **Nicholas Grimshaw** and it opened to the public on 30 June 2001.



Colour in our Rocket Tower to **celebrate the National Space Centre's reopening!**

