Super STATS

THE SOLAR SYSTEM

2nd

130 kph

70 kph

95% Gas

5% Water

SPACE

Ranking stats so you know the facts.

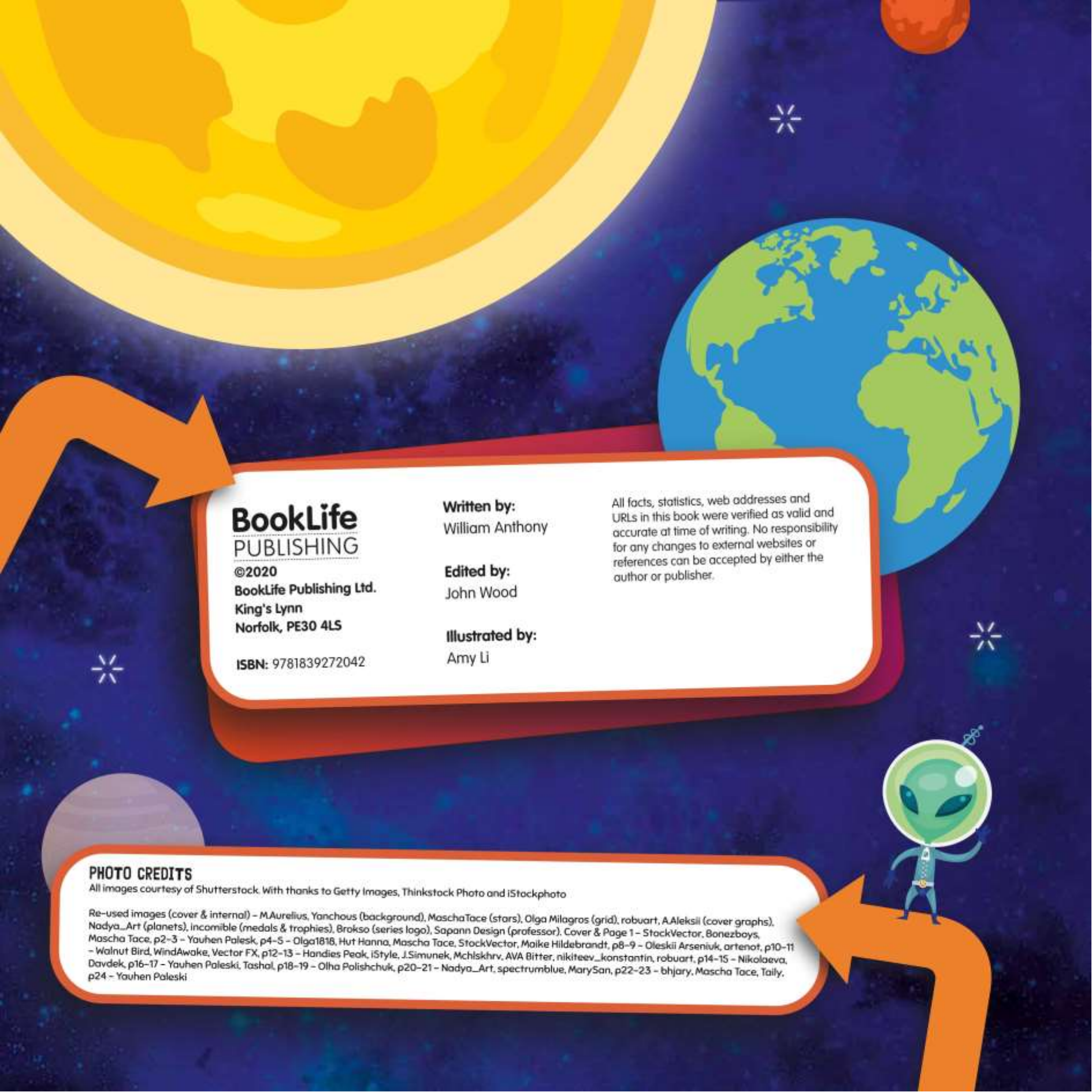
13 billion light-years

FARAWAY GALAXIES

Super STATS

SPACE

By William Anthony



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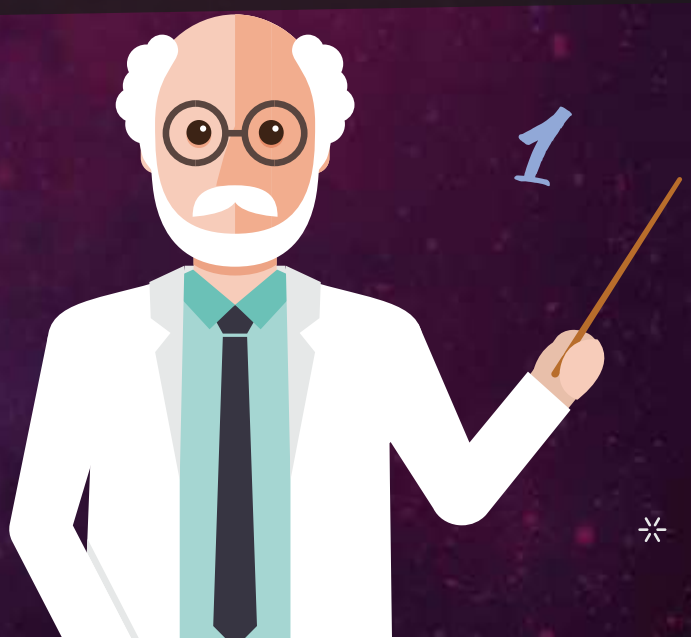
Words that look like this can be found in the glossary on page 24.

SUPER STATS

Numbers are all around us. They help us compare lots of different things to find out all sorts of information, such as which is the biggest or smallest, hottest or coldest.

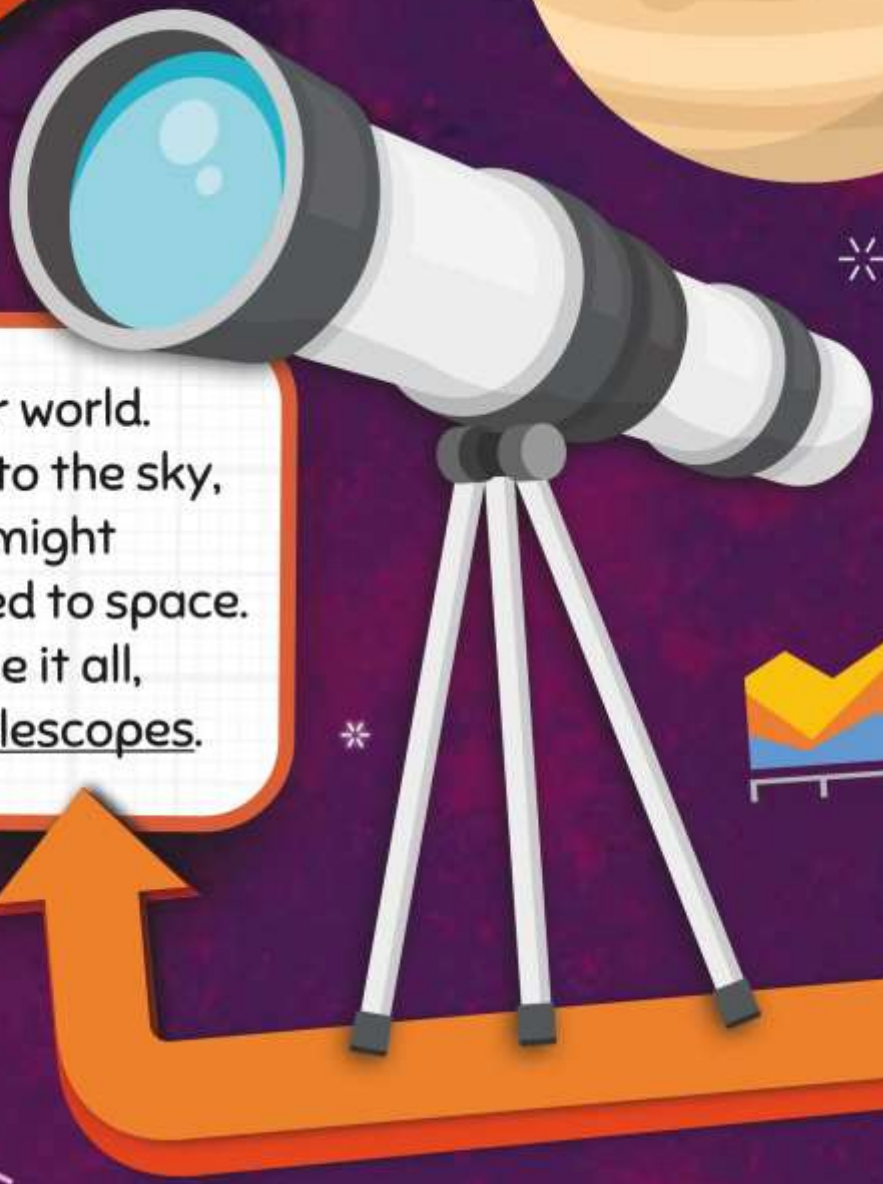
fact

Stats is short for the word statistics. Statistics are numbers that represent bits of information.



SPACE

Space is everything outside our world. You can see it when you look into the sky, especially at night. Our planet might seem big, but it is tiny compared to space. Space is so big that we can't see it all, even with our most powerful telescopes.



HOW BIG ARE WE?

It can be difficult to imagine that Earth is a very small planet. But in our solar system it is only the **5th-largest** planet. Jupiter is the biggest planet and Mercury is the smallest.

Mercury

Earth

FACT

The Sun is not a planet. It is a star like all the other stars you see at night. It looks bigger than the other stars because it is closer to Earth.

Jupiter

Jupiter is so big that you could fit each of the other seven planets in our solar system inside it all at once, with a lot of room still to spare.

If you thought our planet was big, Earth would fit inside Jupiter over **1,300** times.

HOTTEST AND COLDEST PLANETS

Have you ever thought that it was too hot or cold to go outside? On Earth, the temperature is just right for humans. This is one of the reasons why you won't find humans on other planets in our solar system – other planets are too hot or too cold.

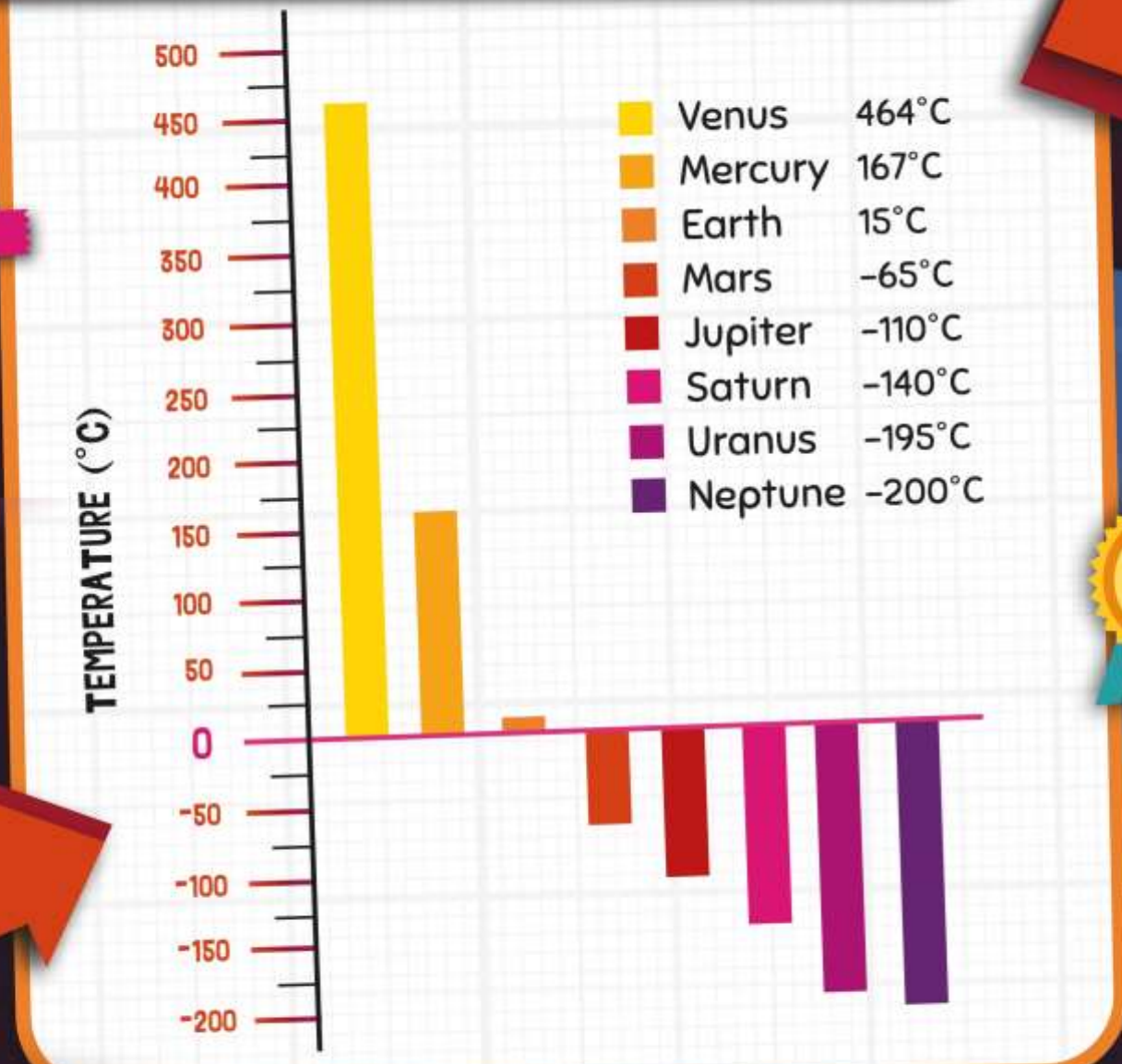
fact

On some other planets, a human would freeze or burst into flames straight away.

Neptune

The <u>average</u> temperature on Earth is around **15** degrees Celsius (°C). On Venus, the temperature is over **460** degrees Celsius, making it the hottest planet in our solar system. The coldest planet is Neptune, at a freezing **-200** degrees Celsius.

AVERAGE TEMPERATURE OF THE PLANETS



1st HOTTEST

Venus

Neptune

1st COLDEST

MOST MOONS

Mars

When we look up at the night sky, we might see the Moon. Earth only has **1** moon, but did you know that some of the other planets in our solar system have lots of moons?

1st MOST MOONS

STAT ATTACK!

The Moon takes around **27** days to complete a full loop around the Earth.

Jupiter

Mercury and Venus have no moons at all. Jupiter has the most moons with **79**. Some of Jupiter's moons are so big that you can see them just by using binoculars.

FACT

Mercury doesn't have any moons because the Sun's gravity would pull any moon away.

PLANET	MOONS	
Mercury / Venus		0
Earth	|	1
Mars	||	2
Jupiter	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||	79
Saturn	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||	53
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OBJECTS LEFT ON THE MOON

Humans have visited Earth's moon to gather information about it. But did you know that we have left lots of strange objects there?

family photo

During the Apollo 16 mission, Charles Duke left a photo of his family.

two golf balls

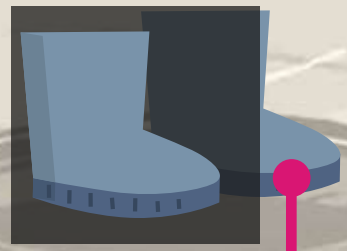
During the Apollo 14 mission, Alan Shepard played golf on the Moon.

tributes

A golden olive branch, medals and a model of an astronaut have been left to remember those who died trying to get to space.

wee, poo and vomit

There are almost 100 bags of human waste on the Moon.



Boots

Many everyday items have been left on the Moon to save weight for the journey home.

BIGGEST STAR

Understanding how big space is can be very difficult. We have already found out how small the Earth is compared to Jupiter, but how small is the Sun compared to the biggest star in space?

FACT

Never look directly at the Sun. It can badly damage your eyes.

The Sun

FACT

Scientists still can't be sure how big some stars are, because they are so far away.

BIGGEST

The biggest-known star in space is UY Scuti. It is so big that it is called a hypergiant. It's thought that UY Scuti could fit 5 billion Suns inside it.

fact

Stars are bright balls of burning gases.

STAT ATTACK!

UY Scuti is thought to be 2.4 billion kilometres across.

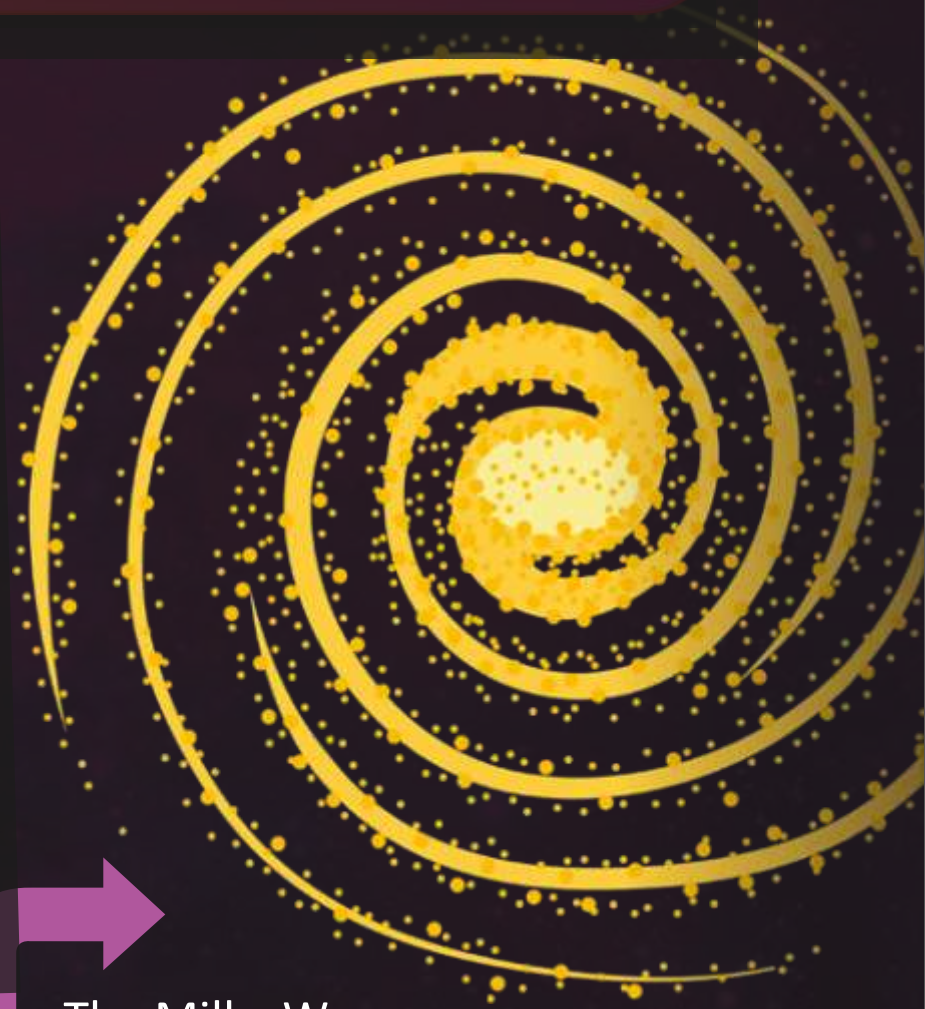
UY Scuti

GIGANTIC GALAXIES

A galaxy is a huge group of gases, dust and billions of stars and their solar systems. Galaxies are held together by gravity. Our solar system is in a large galaxy called the Milky Way.

STAT ATTACK!

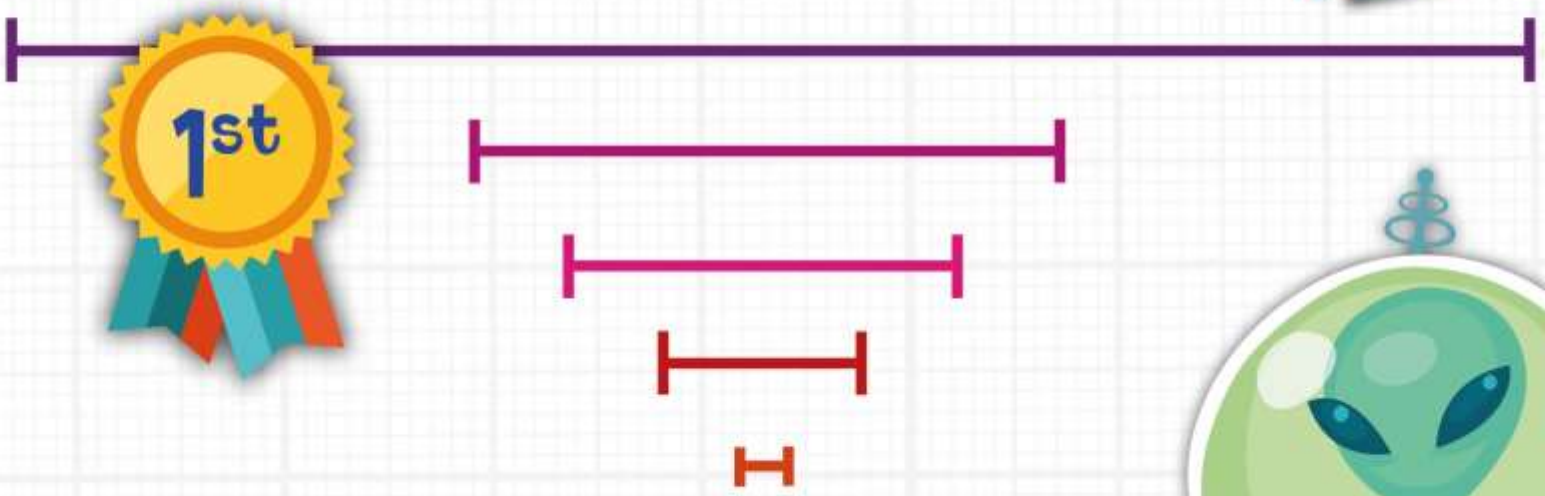
Earth is 12,756 kilometres across. The Milky Way is about 1,000,000,000,000,000,000 kilometres across. That's 1 quintillion kilometres, or 100,000 light-years!



The Milky Way

The biggest galaxy in space is called IC 1101. It is thought to be over **4 million** light-years across. Let's take a look at the size of our galaxy compared to some of the biggest galaxies in space.

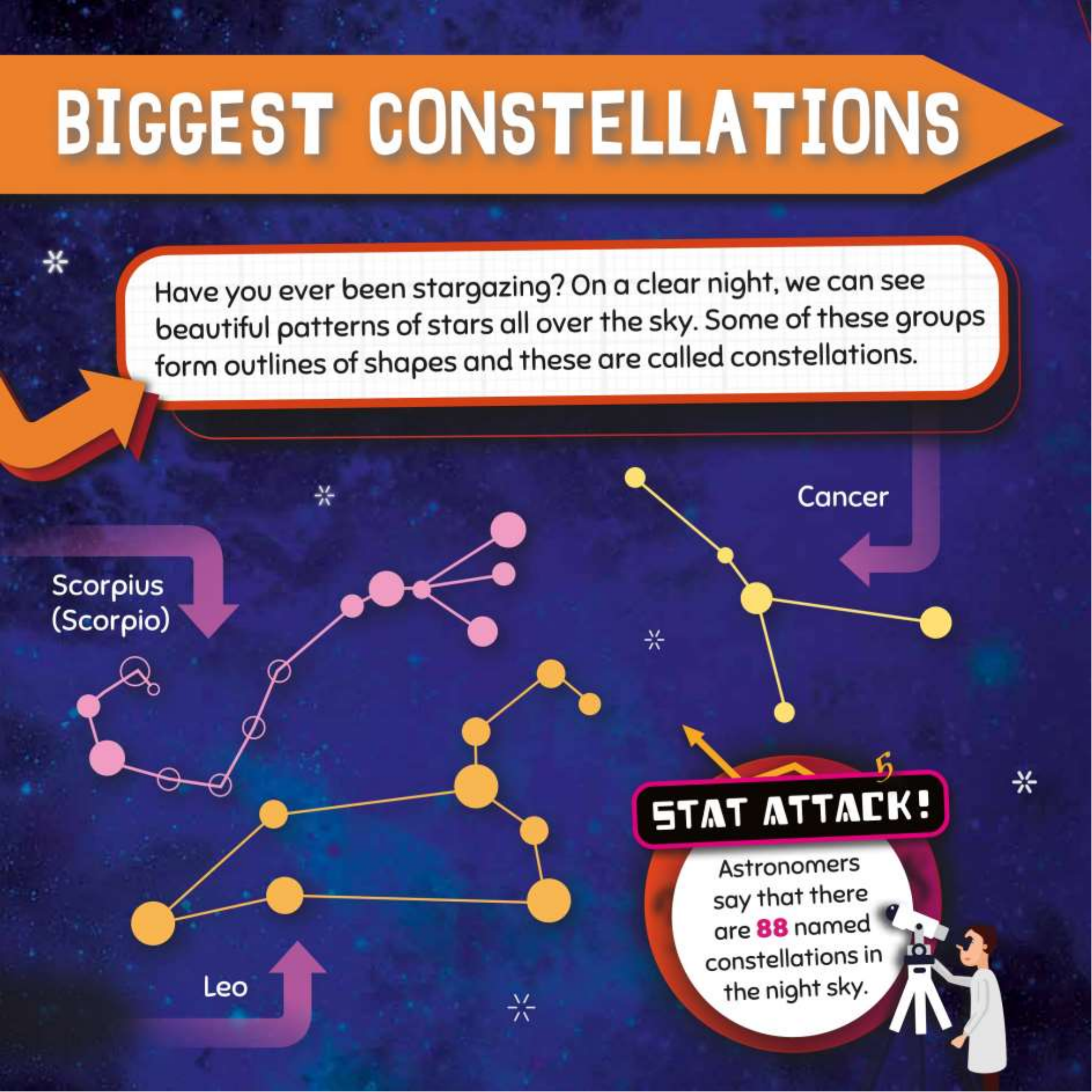
THE BIGGEST GALAXIES IN SPACE



IC 1101	at least **4 million** light-years
Hercules A	around **1.5 million** light-years
Abell 2261-BCG	around **1 million** light-years
NGC 6872	over **500,000** light-years
Milky Way	around **100,000** light-years

BIGGEST CONSTELLATIONS

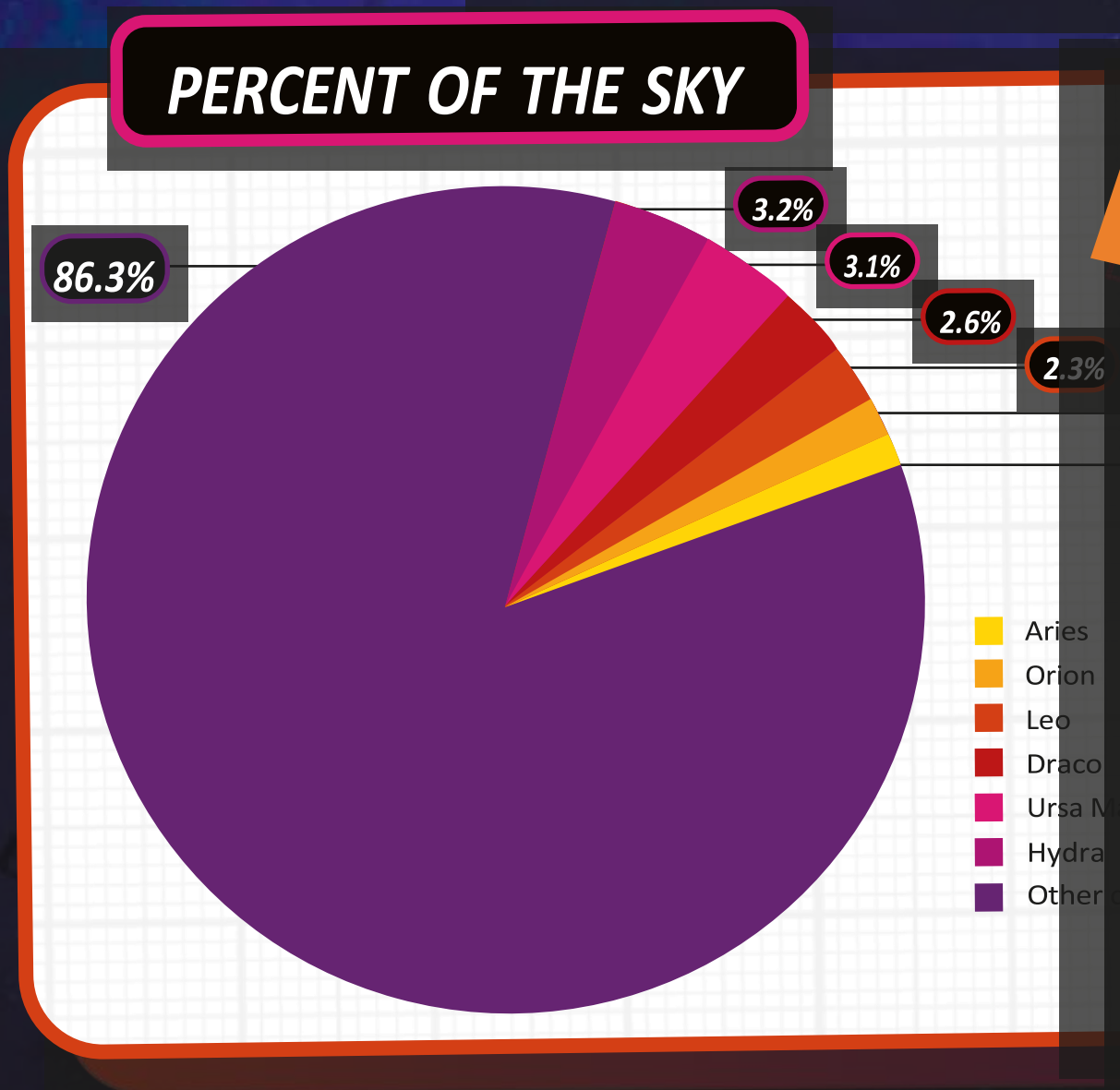
Have you ever been stargazing? On a clear night, we can see beautiful patterns of stars all over the sky. Some of these groups form outlines of shapes and these are called constellations.



STAT ATTACK!

Astronomers say that there are **88** named constellations in the night sky.

The constellations all take up different amounts of the sky. The largest constellation is Hydra, which takes up 3.2 percent (%) of the sky. The smallest is Crux, which takes up just 0.2 percent of the sky. Here are the sizes of some of the most famous constellations.



CRAZIEST WEATHER

Earth has tornadoes, earthquakes and big floods. Other planets in our solar system have even crazier weather.

Mercury's temperature can change from around **430** degrees Celsius in the day to around **-180** degrees Celsius at night.

On Venus, it doesn't rain water - it rains dangerous, strong acid.

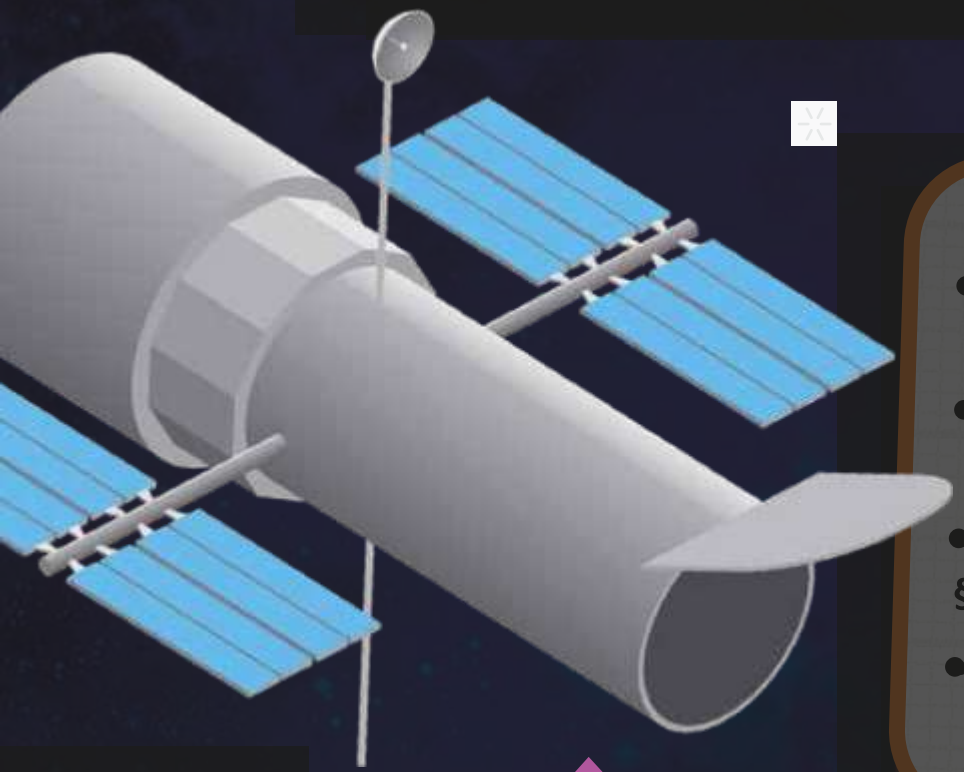
There is a storm on Jupiter that has been going for between 150 and 400 years.

On both Neptune and Uranus, scientists think it could rain solid diamonds.

The fastest ever winds on Earth were around 400 kilometres per hour. The winds on Neptune can reach over 1,800 kilometres per hour. That's faster than the speed of sound!

R, FAR AWAY

To see the some of the farthest things in space, we need very powerful telescopes. We use telescopes to look up into space. This is called making space observations. One of the most famous telescopes we have is Hubble. Hubble orbits the Earth.



Hubble

HUBBLE STATISTICS

- Hubble has made over 1~~3~~million observations.
- Hubble moves around the Earth at about 2~~0~~000 kilometres per hour.
- Hubble has travelled over 6million §§§§ kilometres around Earth.
- Hubble has found objects over 1~~3~~billion light-years away.

Icarus

The farthest star that has been seen was spotted by the Hubble telescope. The star is called Icarus. It is over 9 billion light-years away from Earth.

1st FARTHEST STAR

1st FARTHEST GALAXY

The farthest galaxy ever seen has the less catchy name of GN-z11. It is 13.4 billion light-years away from Earth and was also spotted by Hubble.

GN-z11

GLOSSARY

acid	a chemical that can break things down
average	a usual amount
binoculars	instruments that have one lens for each eye that are used to look at objects that are far away
compare	to look at two or more things to see what is similar or different about them
gases	things that are like air, which fill any space available
gravity	the invisible force that pulls everything towards very large things
light-years	units of distance equal to the distance light can travel in one year
orbits	repeatedly travels around an object in space
percent	one part in every 100
represent	to stand for something else
solar system	a system that includes a star and everything that orbits that star, such as planets and moons
telescopes	instruments that use lenses and sometimes mirrors to make distant objects appear larger
temperature	how hot or cold something is

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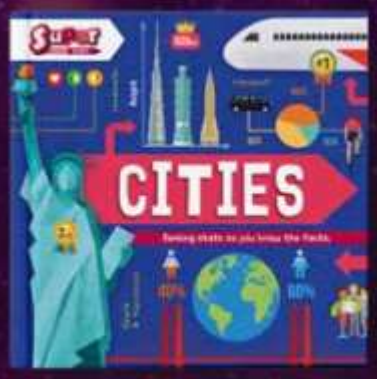
SPACE

Have you ever wondered which dinosaur had the most teeth, or which planet is the biggest? Maybe you want to know how tall the tallest building is, or where you can find the largest crater on Earth?

Super Stats takes you around the world and beyond, ranking the stats so that you know the facts.

OTHER TITLES IN THIS SERIES



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