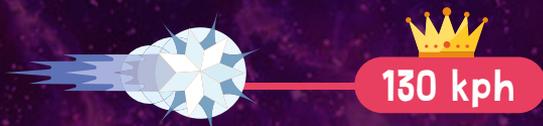


Super STATS

THE SOLAR SYSTEM



SPACE

Ranking stats so you know the facts.



FARAWAY GALAXIES



13 billion
light-years



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.

10



FACT

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

2

5

8

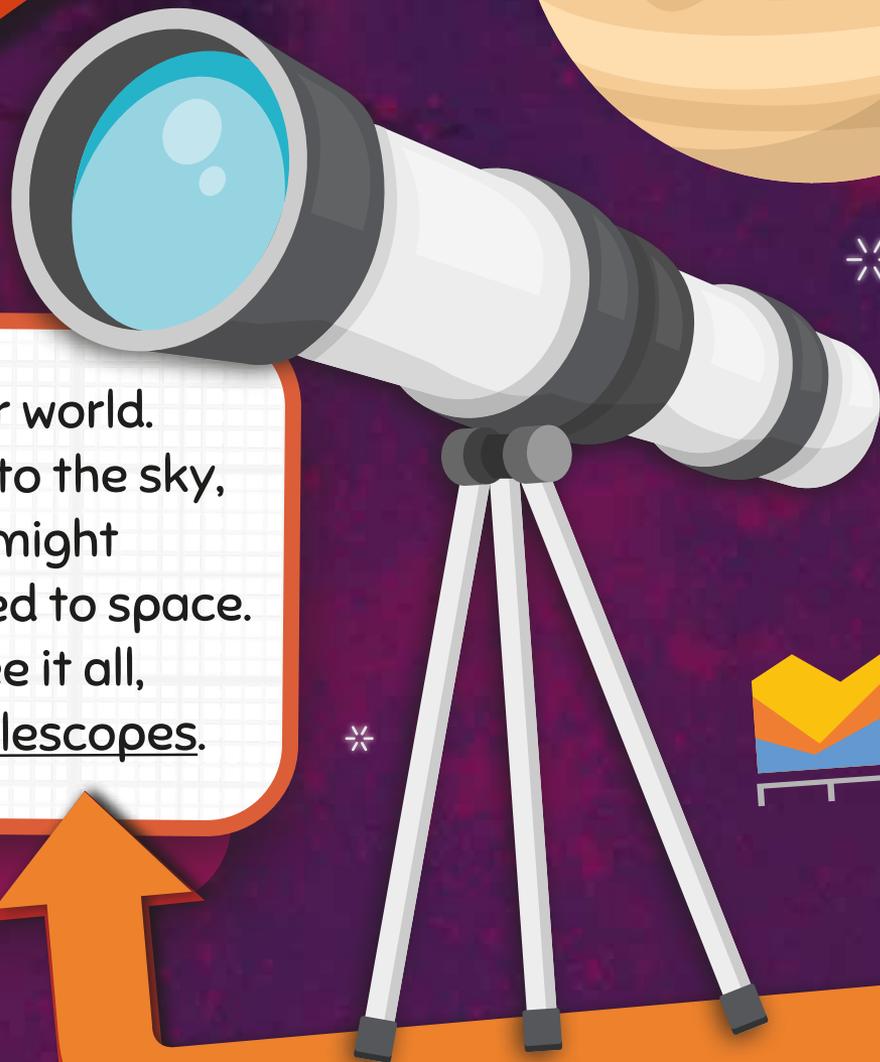
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1



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

YOU ARE HERE!

5th

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

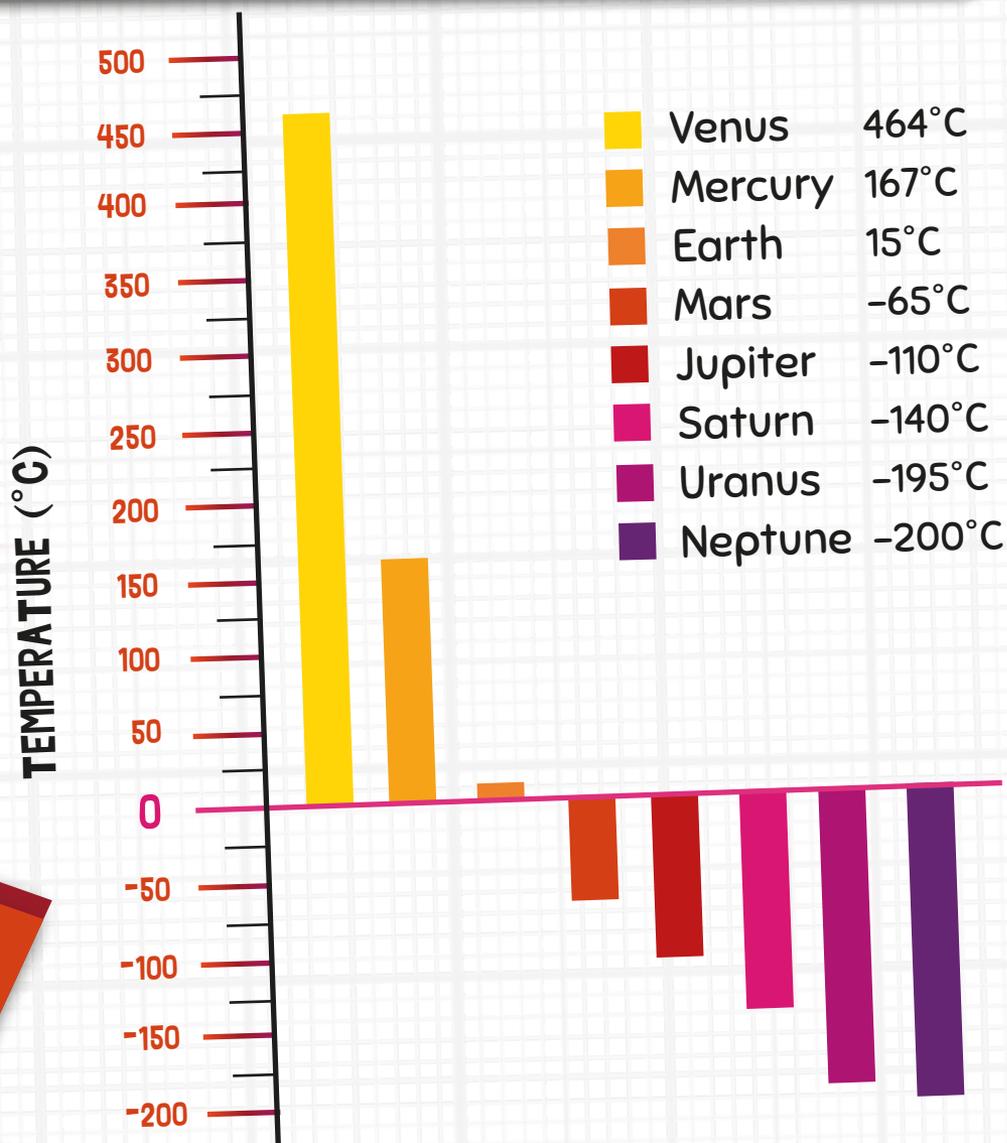
On some other planets, a human would freeze or burst into flames straight away.



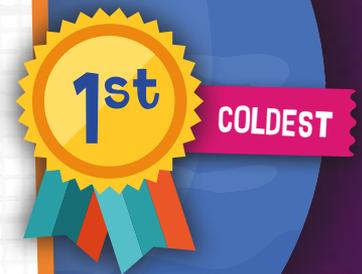
Neptune

The average temperature on Earth is around **15** degrees Celsius ($^{\circ}\text{C}$). 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

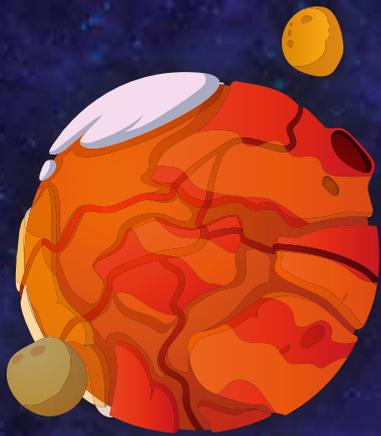


Venus



Neptune

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?

STAT ATTACK!

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

Jupiter

1st

MOST MOONS



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 🏆 | 79 |
| Saturn | 53 |
| Uranus | 27 |
| Neptune | 14 |

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.





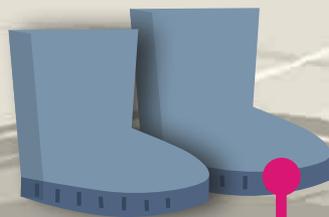
TRIBUTES

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



BOOTS

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



WEE, POO AND VOMIT

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



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.

FACT

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

The Sun





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.

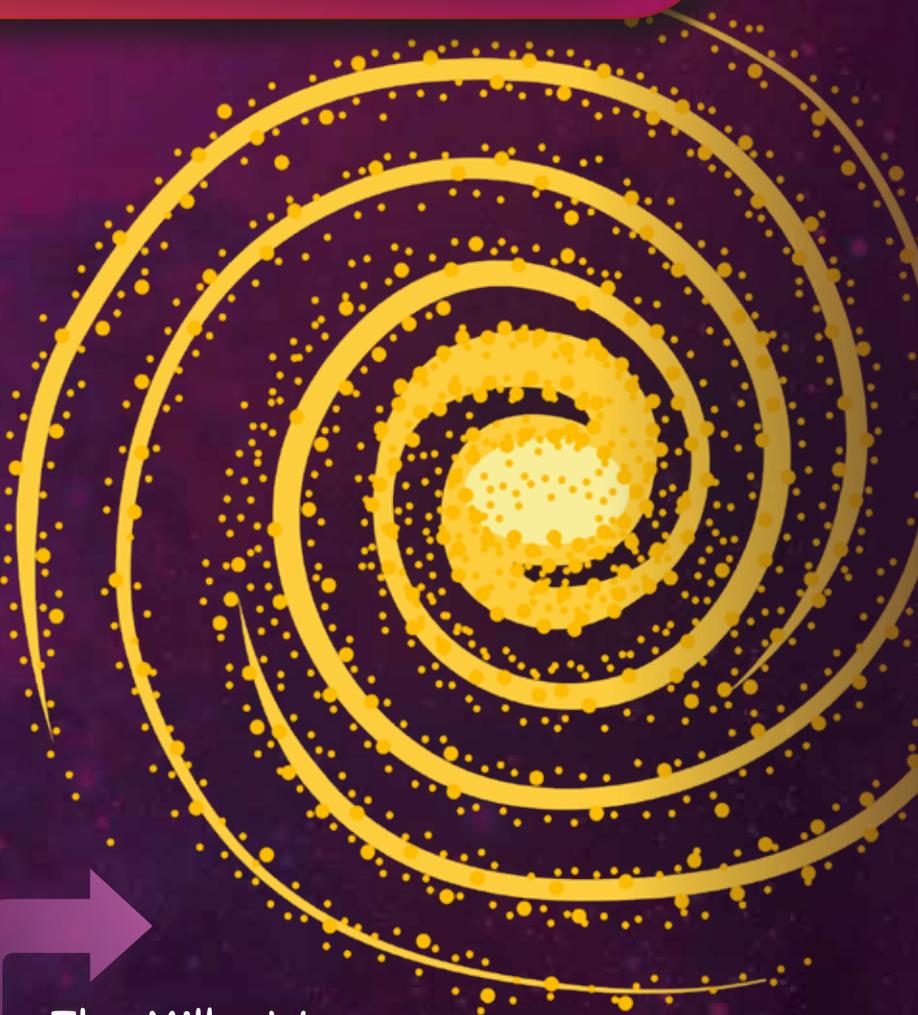
UY Scuti

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!

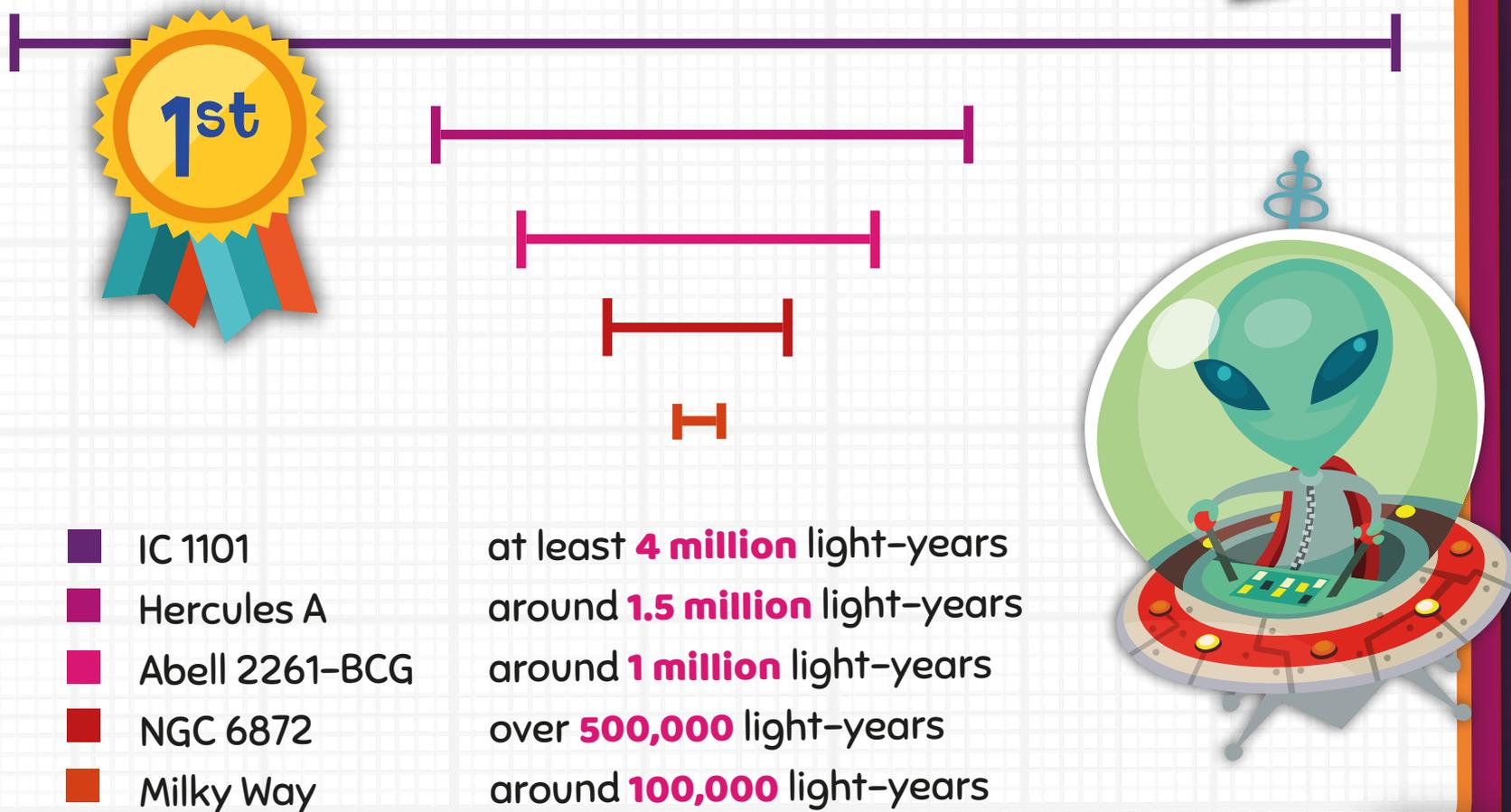
Earth is **12,756** kilometres across. The Milky Way is about **1,000,000,000,000,000,000** kilometres across. That's **1 quintillion** kilometres, or **100,000** light-years!



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



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.

Scorpius
(Scorpio)

Cancer

Leo

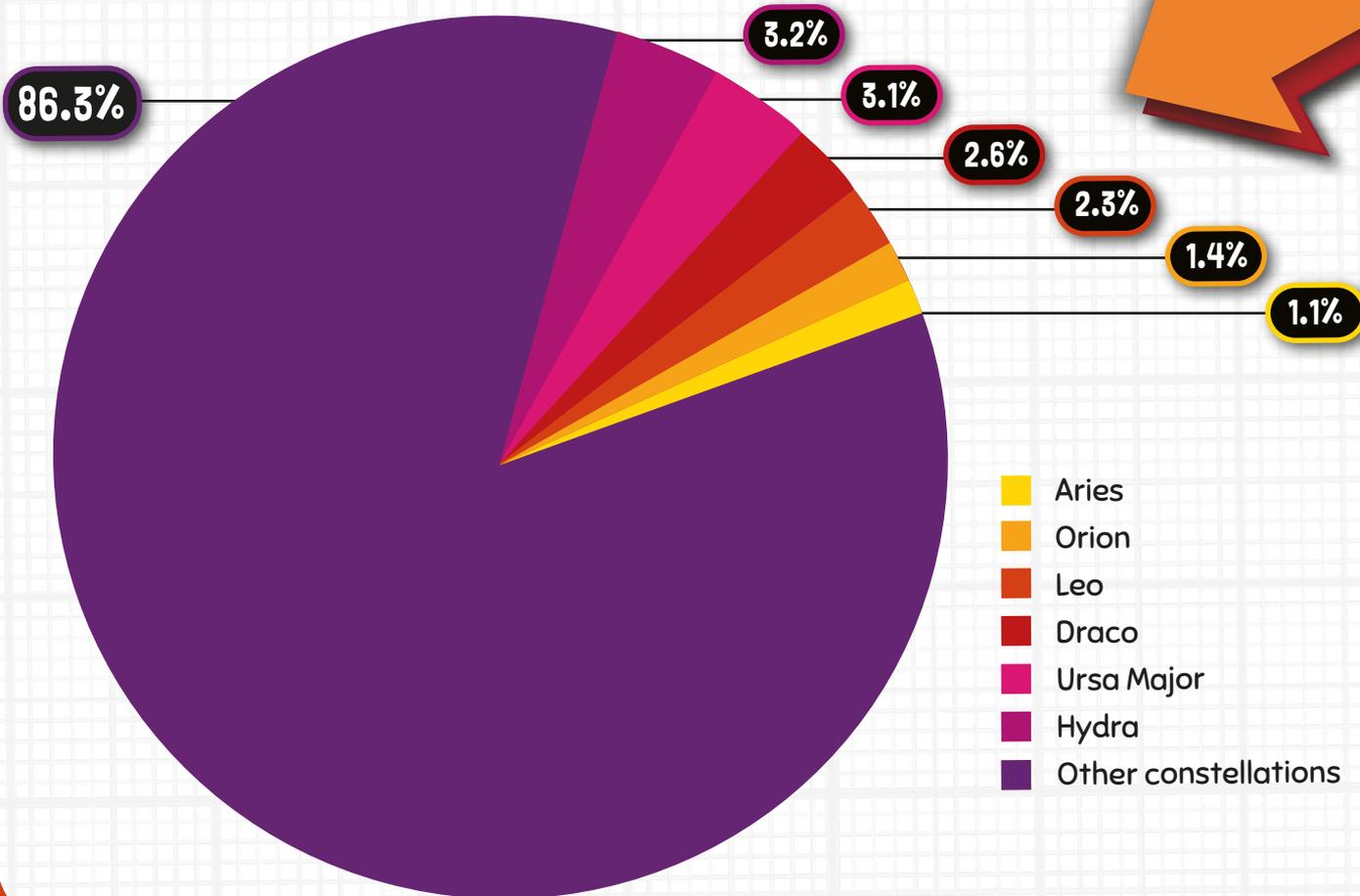
STAT ATTACK!

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



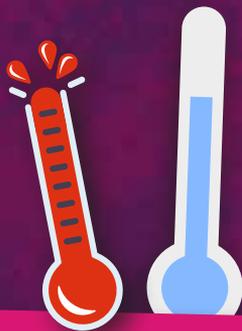
The constellations all take up different amounts of the sky. The largest constellation is Hydra, which takes up **3.2 percent** (%) of the sky. The smallest is Crux, which takes up just **0.2** percent of the sky. Here are the sizes of some of the most famous constellations.

PERCENT OF THE SKY



CRAZIEST WEATHER

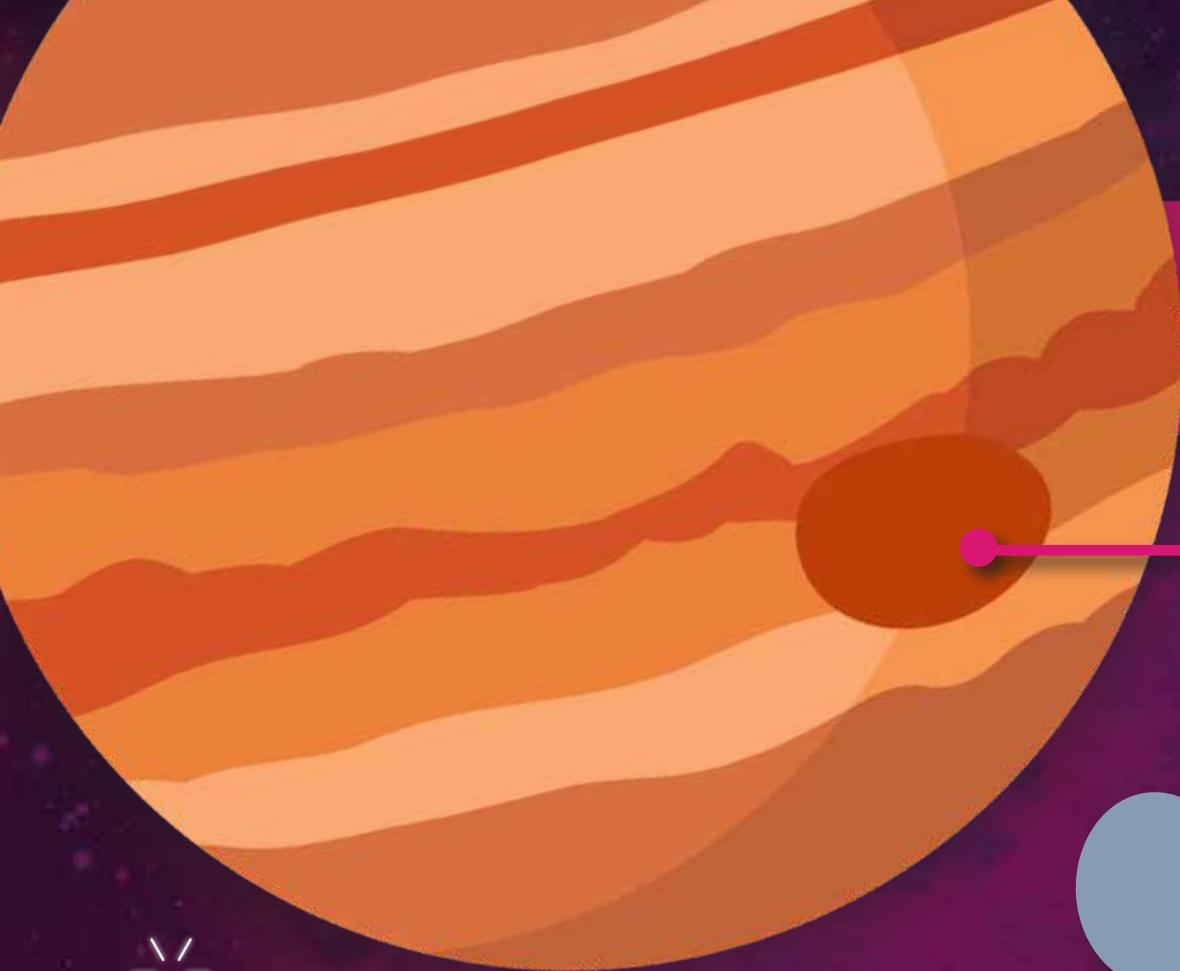
* Earth has tornadoes, earthquakes and big floods. Other planets in our solar system have even crazier weather.



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.

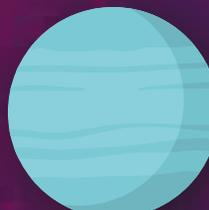




There is a storm on Jupiter that has been going for between **150** and **400** years.



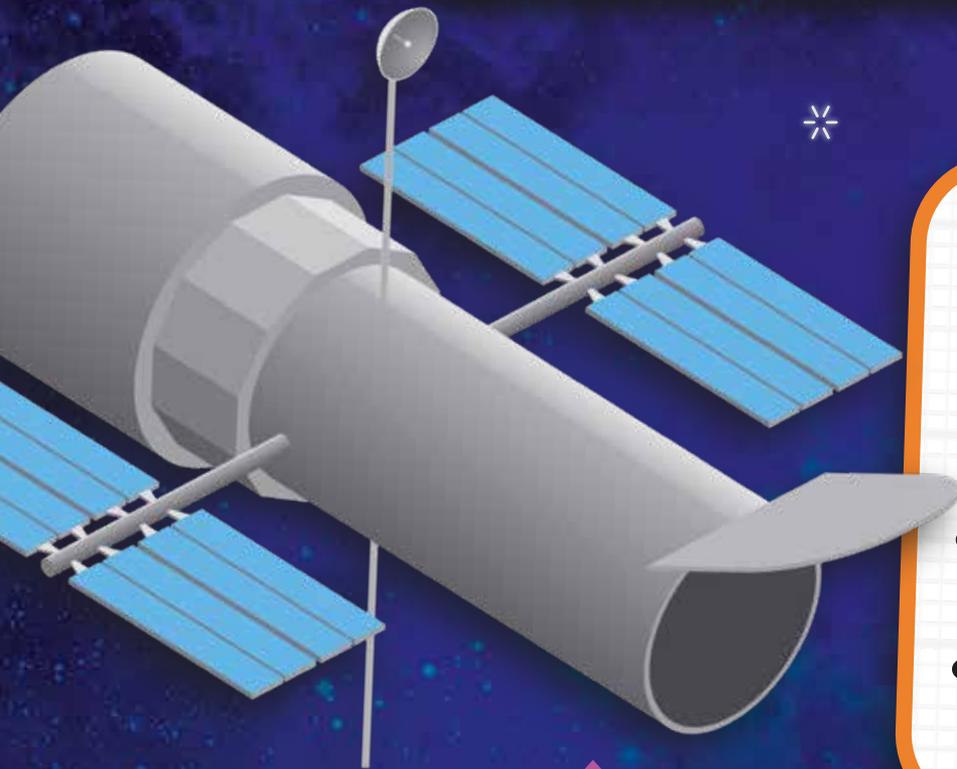
On both Neptune and Uranus, scientists think it could rain solid diamonds.



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!

FAR, FAR AWAY

To see 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 **27,000** kilometres per hour.
- Hubble has travelled over **6 million** kilometres around Earth.
- Hubble has found objects over **13 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



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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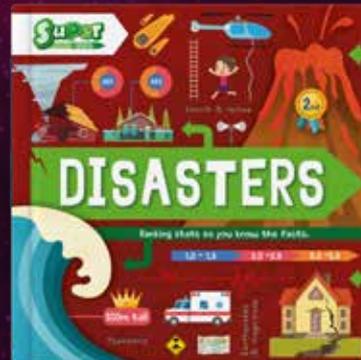
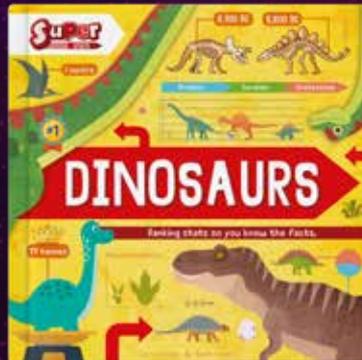
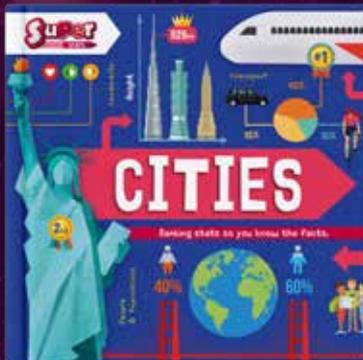
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SPACE

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.

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