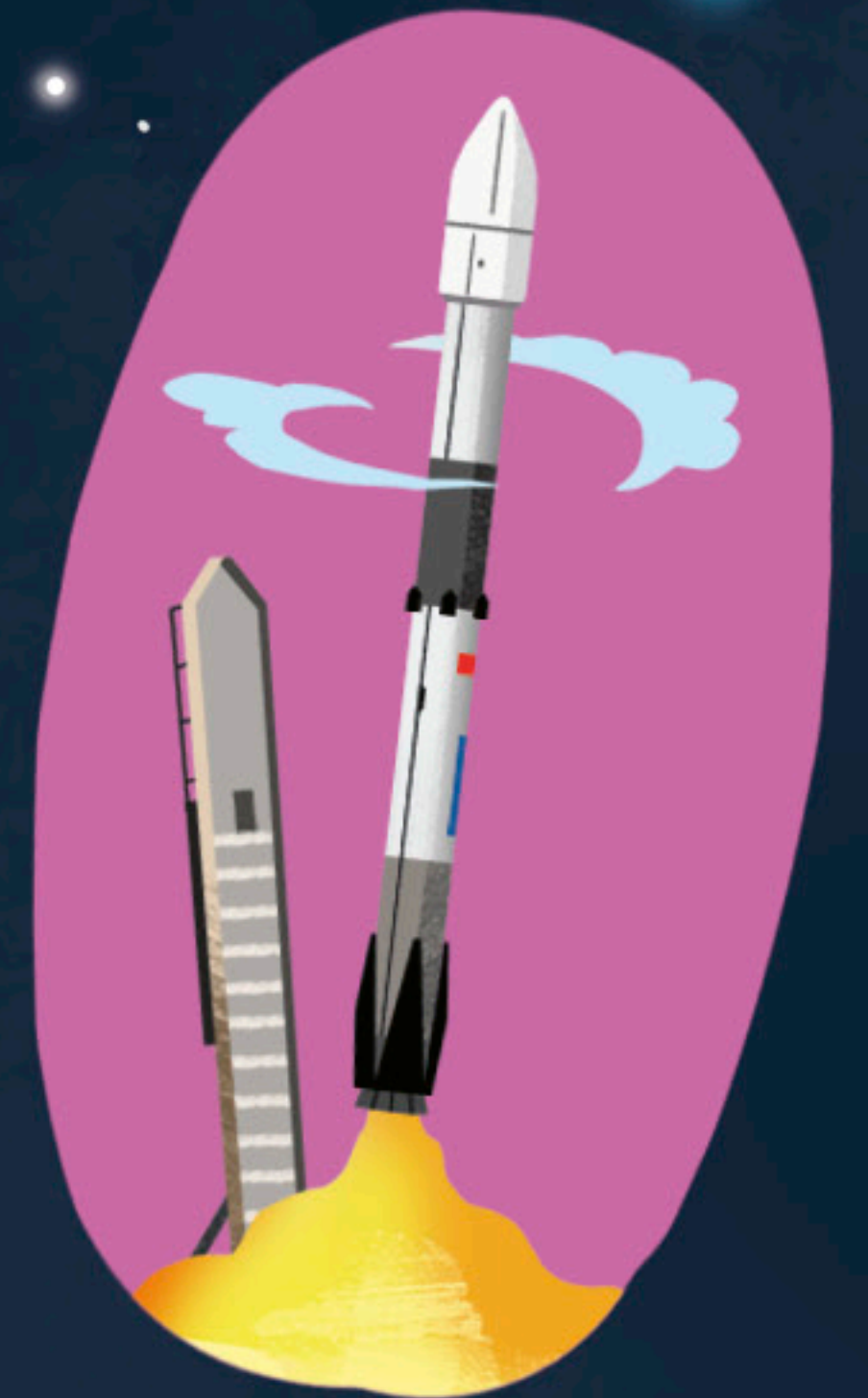




Tell me about...

SPACE



**A FIRST
SCIENCE book
for curious
minds!**

*Written by Emily Dodd
Illustrated by Chorkung*

Welcome to Space

Imagine taking off in a rocket and flying into space
If you looked back, this is what you would see...

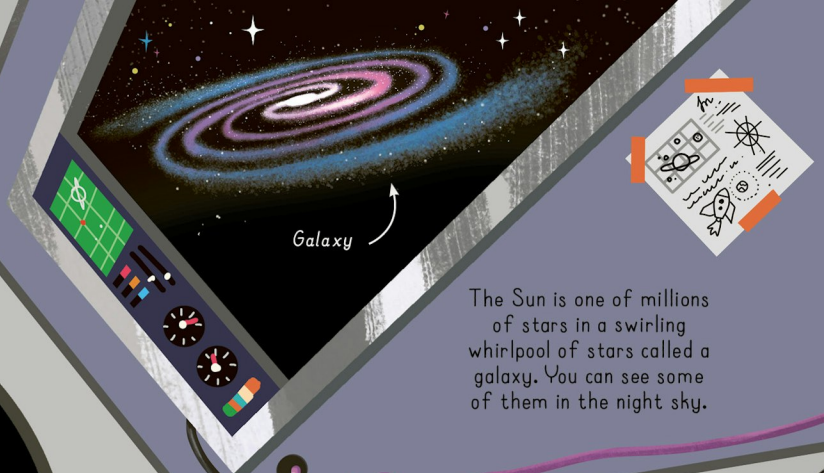


Our home! It's a beautiful, rocky, water-covered ball called planet Earth.

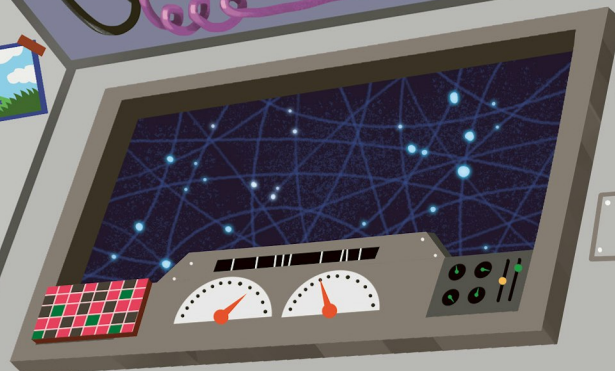
Round and blue

Planets travel in circles around stars. They can be made of rock, like Earth, or from gas and ice.

Earth circles around a star we know well. That's because we see it every day – it's called the Sun!

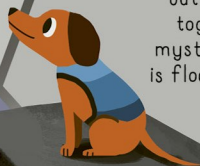


The Sun is one of millions of stars in a swirling whirlpool of stars called a galaxy. You can see some of them in the night sky.



There are millions of galaxies out there, too! They're joined together by dark, stretchy, mysterious webs and all of this is floating in a place called space.

Space is amazing! And it's spreading out and making itself bigger all the time.



Looking Up

One of the brilliant things about space is that we can see it from Earth! Here are some of the things you can see:

Stars

These beautiful twinkling dots are enormous balls of burning gas. They shine out light as they burn.



Constellations

For thousands of years, people have looked up at the stars and made dot to dot pictures. We call these star pictures constellations.



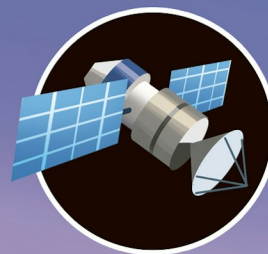
Did you know..?

Stars look small but most are much bigger than Earth. They're just very, very far away.



Planets

Bright dots that don't twinkle are planets. They don't make their own light. They reflect the Sun's light, like mirrors.



Satellites

Bright dots moving in a straight line across the sky are usually satellites. Scientists send them into space to do important jobs like making maps and taking pictures of the weather.

That looks like a flying horse!

I can see a lion!

Look, it's moving!

The Moon

The Moon is the brightest object in the night sky. It's a round, rocky ball about a quarter of the size of Earth.

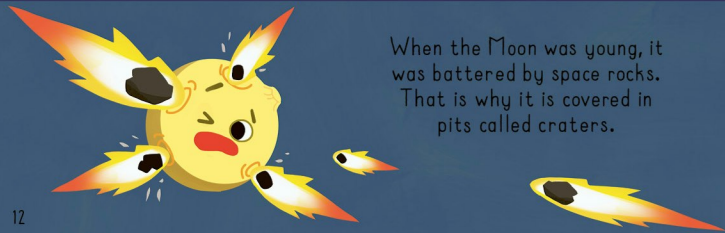
The Moon looks bright because the Sun's light bounces off it.



The Moon travels around Earth in a loop called an orbit. Each orbit takes about a month.



When the Moon was young, it was battered by space rocks. That is why it is covered in pits called craters.

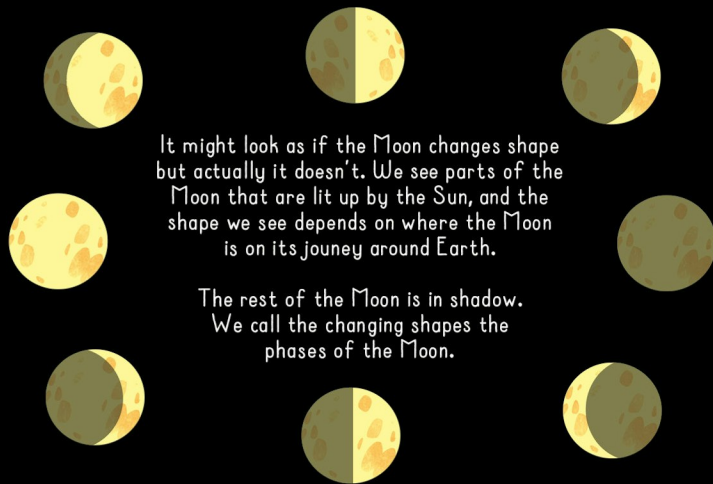


As the Moon orbits Earth, the Sun's light shines on it's surface.



It might look as if the Moon changes shape but actually it doesn't. We see parts of the Moon that are lit up by the Sun, and the shape we see depends on where the Moon is on its journey around Earth.

The rest of the Moon is in shadow. We call the changing shapes the phases of the Moon.



It's behind you!



Did you know_?
The same side of the Moon always faces towards Earth. The other side is called the dark side of the Moon because we can't see it!

Shooting Stars and Space Rocks

Have you ever seen a shooting star? It's not really a star at all! It's a tiny bit of space rock the size of a grain of sand.

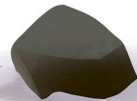
When a rock from space travels towards Earth, it falls through the air around our planet and rubs against it. This is called friction.



A space rock falling through the air is called a meteor. If it lands on Earth, we call it a meteorite.



Meteorites can be made from stone or metal or a mixture of both.



Meteorites are easy to spot in snowy and sandy places where they stand out.

Rub your hands together quickly for five seconds. Can you feel them heating up? This heat is because of friction too. When a space rock speeds through Earth's air, there's so much friction that it catches fire!



When a bigger space rock travels through the air, we can see it glowing as it catches fire, even in the daytime.



Did you know...?
Dinosaurs became extinct after a giant meteorite crashed into Earth!

