

★ Looking Up! Year 2 Science at Home

You can help! You don't need to know anything about space to do this. Just go outside together and look up!

Why are we learning this? The sky above our Country

Up here in remote northern Australia, we have some of the clearest night skies in the world — no city lights mean you can see thousands of stars. First Nations Australians have been reading the stars for tens of thousands of years, using them to navigate, to mark the seasons, and to know when food is ready to find. The Southern Cross has guided people across Country for generations. When your child looks up at the sky and asks questions, they are connecting to one of the oldest and most important sciences on Earth.

My child will learn to:

✓ What is the solar system?

Know that the Sun is a star and 8 planets travel around it.

✓ Where is Earth?

Understand that Earth is the third planet from the Sun.

✓ Sky patterns — day

Describe how the Sun moves across the sky from morning to evening.

✓ Sky patterns — night

Identify the Moon, stars and sometimes planets in the night sky.

Big ideas to know:

The Solar System

The Sun is a giant star. Eight planets travel around the Sun in oval paths called orbits. Earth is the third planet from the Sun.

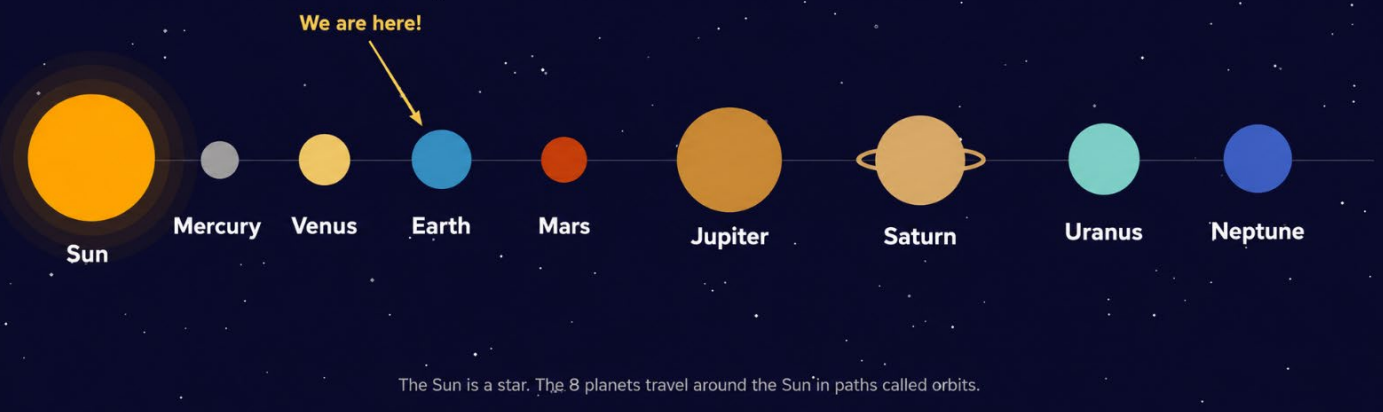
Celestial Objects

Anything we can see in the sky is called a celestial object. The Sun, Moon, stars and planets are all celestial objects.

Patterns in the Sky

The Sun rises every morning in the east and sets in the west. The Moon slowly changes shape over about 4 weeks. Stars appear every night.

Our Solar System



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Patterns in the Sky — What to look for

What to look for	What happens	Fun fact
 The Sun	Every day, the Sun rises in the EAST in the morning, moves across the sky, and sets in the WEST in the evening. It does this because Earth is spinning.	<i>NEVER look directly at the Sun — it can hurt your eyes!</i>
 The Moon	The Moon seems to change shape over about 4 weeks — from a thin crescent to a big full moon and back again. These are called moon phases.	<i>A full moon happens about once every 4 weeks.</i>
 Stars	Stars are only visible at night because the Sun's light is too bright in the daytime. The same star patterns (constellations) appear every year.	<i>The Southern Cross is a famous star pattern visible from up here!</i>
 Planets	Planets like Venus, Jupiter and Mars can sometimes be seen in the night sky. They look like very bright stars — but they don't twinkle!	<i>Venus is often the brightest object in the night sky after the Moon.</i>

Think Like a Scientist — Sun Tracker

For 3 days in a row, go outside at the SAME time in the morning and the SAME time in the afternoon.

Look where the Sun is in the sky. NEVER look directly at it — look at the shadows it makes instead.

Ask your child: "Is the Sun in the same place as yesterday?" What pattern do they notice?

Steps:

1. Pick a time — e.g. 7am and 4pm
2. Stand in the same spot each day
3. Look at your shadow — where does it point?
4. Draw what you see — make a simple sketch
5. Compare your drawings — what's the same?

Questions to ask your child

1. Can you show me where the Sun is right now? Where will it be this afternoon?
2. What shape is the Moon tonight? Can you draw it for me?
3. How many planets are in our solar system? Can you name them?
4. Is the Sun a planet or a star? How do you know?
5. Why do we only see stars at night and not in the daytime?
6. Can you find the Southern Cross in the sky tonight?
7. If Earth was much closer to the Sun, what do you think would happen?

Tip: you don't need to know the answers — let your child be the expert!

Key words to know:

Solar system	The Sun and everything that travels around it
Planet	A large ball of rock or gas that orbits the Sun
Orbit	The path a planet takes as it travels around the Sun
Celestial object	Anything we can see in the sky — Sun, Moon, stars, planets
Star	A huge ball of hot gas that makes its own light. The Sun is our nearest star.
Moon	Earth's natural satellite — it orbits Earth and reflects the Sun's light
Pattern	Something that happens again and again in the same order

Key words to look up

Solar system · Planet · Orbit · Celestial object
· Star · Moon · Constellation · Pattern

What school will check

Your child needs to name celestial objects and describe patterns they see in the sky — like how the Sun moves each day.

Try it at home!

Go outside tonight and look up. Count the stars you can see. Can you find the Moon? Is it full, half or a thin crescent?