

1

WHAT'S IN SPACE?

Learning objectives

By the end of this unit, your pupils will have achieved a greater understanding of the following concepts:

- the sun as the centre of our solar system
- the movements of the Earth and the moon
- the differences between seasons
- the different ways we measure time

Competencies

This unit covers the following competencies:

- Sci C1: Digital competency 
- Sci C2: Scientific thinking competency 
- Sci C3: Problem-solving competency 
- Sci C4: Competency in self-awareness and empathy 
- Sci C7: Competency in historical awareness 

Key vocabulary

Solar system: Earth, moon, planet, star, sun

Seasons: spring, summer, autumn, winter

Time: days of the week, hours, months of the year, o' clock, week

Measuring time: calendar, clock, watch

Cambridge English Qualifications practice

You will find **Pre A1 Starters** activity types in the following exercises:

Pupil's Book, Page 17, Activity 1 – Reading and Writing Part 1

Pupil's Book, Page 85, Activity 1 – Reading and Writing Part 5

Pupil's Book, Page 85, Activity 2 – Reading and Writing Part 3

Activity Book, Page 6, Activity 11 – Reading and Writing Part 3

Activity Book, Page 6, Activity 12 – Reading and Writing Part 2

Throughout this unit, you will find the following **Pre A1 Starters** vocabulary:

balloon, blue, clock, colour, day, draw, favourite, green, happy, know, listen, name, night, no, number, paint, read, sad, see, song, sun, white, write, year, yellow, yes





Digital Resources on Cambridge One

- Song: *We all orbit the sun*
- Chant: *The seasons and me*
- Video documentary: *The Earth moves!*
- Presentation Plus with interactive activities
- Practice Extra with interactive activities
- Test Generator
- Resource Bank:
 - Flashcards: 1–19
 - Worksheets for revision
 - Concept map
 - Letter to parents
 - Practice Extra answer keys
 - Oracy talking points worksheet and cue cards
 - Programaciones
 - Downloadable class audios and videos

Materials needed for *Hands on*

- a dish and modelling clay
- balloons and strips of newspaper
- A4 paper
- a paper plate, card and split pins

Materials needed for other activities

- pegs and a washing line to hang up papier mâché balloons to dry (optional)
- a calendar with a page for each month, a clock (with movable hands), a watch

Hands on

In this unit, each spread has a project. Pupils will explore the movement of the Earth around the sun and the moon around the Earth, the difference between seasons, and how we measure the hours of a day. These are projects where pupils make and create in order to observe and understand the concepts of space and time.

Mindful time

Each unit has a Mindful time feature that encourages pupils to relate learning to their feelings and emotions, their relationships with classmates, and their well-being. The audio (*track 13*) can be used throughout the course to achieve moments of calm, in which pupils focus on their breathing and connect with the world around them.

In this unit, pupils will think about the space around them, their personal space and that of others.

Excerpt
[More Information](#)**UNIT 1** PAGES 6–7**Objective:**

Pupils will share what they know about space. They will become familiar with the vocabulary *sun*, *the Earth* and *moon*. For teachers, this is an opportunity to assess what pupils already know regarding concepts and vocabulary.

Key vocabulary

Earth, moon, orbit, planet, space, star, sun

**Tip**

The craft on page 11 will need more than one class. It may be a good idea to start gluing the newspaper onto the balloons in this class whilst discussing the appearance of the sun, the Earth and moon.

Warm up

Ask pupils to look up at the sky and talk about what they can see. If it's a cloudy or rainy day, ask *Where is the sun?* Ask whether they can see different things in the sky at night. Write pupils' suggestions on the board along with *sun*, *star(s)* and *planet* and encourage them to say the words. Encourage pupils to talk about what they know.

Suggested answers: sun, moon, planets, stars, satellites

**Mindful time**

Ask pupils to spread out their arms and imagine they are planets moving around in space. They must move around without touching anyone else. Ideally, this would be done outside or in a gym. Talk with pupils after the activity about respecting each other's space, this can be around their desks, when they line up, wash their hands, etc.

Excerpt
[More Information](#)



the sun (a star), the Earth (a planet) and the moon (a satellite)

It's a star.

Main concepts

- Ask pupils to look at the opening pages. Give pupils a *whispering minute* – this is time when they can look and talk about what they see with a partner. Then ask *What can you see?* Encourage pupils to name and describe what they see.
- Read the question *Is the sun a star or a planet?* If pupils are not sure just explain they will find out in the unit.
- Talk about the unit character. Ask *Who is he? What is an astronaut?*

Learn more

Provide sentence starters on the board: *I can see the ... / This is the ... / It is ... / It has ...* and once pupils are familiar with the objects on the page, encourage them to go back and use the sentence starters with a partner: *I can see the Earth.* etc.

Song

The song reinforces the concept of the Earth orbiting the sun and the moon orbiting the Earth. It provides the sentence structure to describe this. Play the song while pupils look at page 10.

Documentary

The documentary focuses on the Earth's relationship with the moon and the sun, and their movements. This is best viewed in this lesson or the next, on page 8. Before pupils watch, ask *Does the Earth move?* And give them time to think about this.

Excerpt
[More Information](#)

UNIT 1 PAGE 8

Objective:

Pupils will learn that the sun is a star and is the centre of our solar system. They will understand that the Earth is a planet that orbits the sun.

Key vocabulary

Earth, planet, solar system, star, sun



Warm up

Review the shapes: square, triangle, rectangle and circle. Ask pupils to draw a big circle in the air with their finger and ask *What is it?* When pupils say *sun*, have them spell the word. Repeat with *Earth*.

Main concepts

- Point to the sun / the Earth and ask *What is it?* Read the sentences together. Ask what they think *orbit* means. Pupils trace the line around the sun with their finger.
- Pupils draw a star in the box. Observe the shape. The sun is a star, but it is round – the light around stars makes them glow and appear to have points.

Learn more

- Read the information about the sun. Ask pupils if they can name any planets.
- Draw attention to the tip. Ask *How can you protect yourself?*

Stars are giant balls of very hot gas that make light; planets are made of rock or gas and orbit (move around) stars.

WHAT ARE STARS AND PLANETS?

Draw another star in the box.

The sun is a star.

The Earth is a planet.

The Earth orbits the sun.

8

Excerpt
[More Information](#)

UNIT 1 PAGE 9

Objective:

Pupils will observe how the Earth orbits the sun.

Key vocabulary

Earth, planet, solar system, star, sun



Warm up

Have pupils do the Mindful time activity. Encourage them to spread out their arms and *orbit* each other. Ask *What orbits the sun?*

Main concepts

- Ask pupils what the children in the first photo are making. Hold up your own modelling clay model.
- Say *Let's see how we move around the sun*. Demonstrate how to press and stick the *sun* at the centre of the dish, and swivel the dish to make the Earth go around. Pupils work with one dish between two, repeating the phrase *The Earth orbits the sun* as they swivel their dish.

Learn more

- Have pupils draw and label the dish with the sun and moon in their notebooks and write *The Earth orbits the sun*.
- Read *My dictionary* as a class. Ask pupils to find the sticker and trace the words.
- Ask pupils to read and complete the *What have I learnt?* box individually.

Hands On...

Let's see how we move around the sun.

1 Make the sun and the Earth with modelling clay.



2 Stick the sun to the centre of the dish. Move the Earth around the sun.



What have I learnt?

The s_____ is the centre of the s_____ system.
The E_____ goes around the sun.
The sun is a s_____ and the Earth is a p_____.

Try it out

MY DICTIONARY



The sun is the centre of the solar system. The Earth goes around the sun. The sun is a star and the Earth is a planet.

Excerpt
[More Information](#)

UNIT 1 PAGE 10

Objective:

Pupils will learn that the moon orbits the Earth while the Earth orbits the sun.

Key vocabulary

day, Earth, moon, night, orbit, sun



Warm up

Slowly spell *sun, star, Earth, planet, orbit* on the board with pupils.

Main concepts

- Give pupils a *whispering minute* to talk about the images on the page.
- Ask pupils to trace the blue line with their finger and say, *The Earth orbits the sun.* They trace the purple line saying, *The moon orbits the Earth.* Pupils trace lines with a pencil.
- Play the song *We all orbit the sun* and have pupils run their fingers round the orbits as they sing.

Learn more

- Read and ask pupils where the sun is during the night and where the moon is during the day. Encourage pupils to share ideas freely (without judgement).
- Read the Fun Fact. Explain it's Little Armstrong's footprint.

It orbits the Earth.

WHAT DOES THE MOON ORBIT?

Trace the dotted lines.

The moon orbits the Earth.

Find out

moon

Earth

sun

FUN FACT
There are footprints on the moon!

10

Excerpt
[More Information](#)

UNIT 1 PAGE 11

Objective:

Pupils will consolidate their understanding of the movements of the Earth, moon and sun.

Key vocabulary

day, Earth, moon, night, orbit, sun



Warm up

Show pupils the three different sizes of balloon. Ask *Which will be the sun, the Earth and the moon?*

Main concepts

- Read the instructions together and ask pupils what they are going to make.
- Demonstrate and help as necessary. Hang balloons up to dry.
- Once the balloons are dry, organise pupils into groups of three. Each group has a model of each colour.
- Give pupils time to think about how they can move with the balloons to show the orbit of the Earth and the moon.

Learn more

- Read *My dictionary* as a class. Ask pupils to find the sticker and trace the words.
- Ask pupils to read and complete the *What have I learnt?* box individually.

Hands On...

Let's orbit!

1 Work in groups of three. Cut out newspaper strips and glue them onto three different-sized balloons.



2 When they dry, paint the small one white, the medium one blue and green, and the big one yellow.



Try it out

MY DICTIONARY



moon



orbit



day



night

What have I learnt?

The Earth orbits the sun.
The moon orbits the Earth.
We see the sun during the day and the moon at night.

Move and show the orbits of the Earth and moon.



11



The Earth orbits the sun. The moon orbits the Earth.
We see the sun during the day and the moon at night.

Excerpt
[More Information](#)

UNIT 1 PAGE 12

Objective:

Pupils will learn that there are twelve months and four seasons in a year. They will learn which months correspond to the different seasons.

Key vocabulary

autumn, spring, summer, winter, the months of the year



Warm up

Review the months of the year by turning the pages of a calendar and asking pupils to call out each month.

Main concepts

- Point to January on the wheel and together read out each month in order. Ask *How many months are there in a year?*
- Say the months and have pupils stand up when it's their birthday.
- Ask pupils to describe the photos. Explain that we call these different times of year *seasons*. Ask *How many seasons are there?*

Learn more

- Encourage pupils to say which is their favourite season and why.
- Read and discuss the Fun Fact.
- Point out, read and explain the hidden feature instruction. Discuss how leaves on some trees change.

A month is a period of time of about four weeks; a season is one of the four periods of the year (spring, summer, autumn, winter).

My birthday's in ... (pupils' own answers).

WHAT ARE MONTHS AND SEASONS?

When is your birthday? Circle the month.

There are 12 months in a year.



What is your favourite season?

Find the autumn leaf hidden in the unit!

FUN FACT

When it is summer in Spain, it is winter in Australia!



It's ... (pupils' own answers).

It's on page 14, behind the title.

Excerpt
[More Information](#)

UNIT 1 PAGE 13

Objective:

Pupils will consolidate their understanding of the seasons by making a flap book.

Key vocabulary

autumn, spring, summer, winter, the months of the year



Warm up

Begin with a Mindful time activity. Pupils stand up and imagine they are trees. Ask them to show you the biggest space they can occupy and then the smallest.

Main concepts

- Divide the board into four. Ask pupils to spell the seasons and write one in each box. Ask pupils to tell you what they can see or do in each season.
- Read the instructions. Demonstrate how to fold and where to draw and write. When pupils finish, they can show each other their flap books.

Learn more

- Pupils test each other on the months in each season.
- Read *My dictionary* as a class. Ask pupils to find the sticker and trace the words.
- Ask pupils to read and complete the *What have I learnt?* box individually.

Hands on...

Make a flap book for the seasons.

1 Fold and cut the paper. Write the seasons on the flaps.



2 Draw and colour something from each season inside.

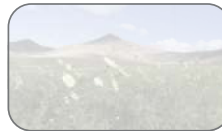


What have I learnt?

There are four seasons:
s _____, s _____,
a _____ and w _____.
There are 12 m _____
in one year.



MY DICTIONARY



spring



summer



autumn



winter



month



There are four seasons: spring, summer, autumn and winter.
There are 12 months in one year.