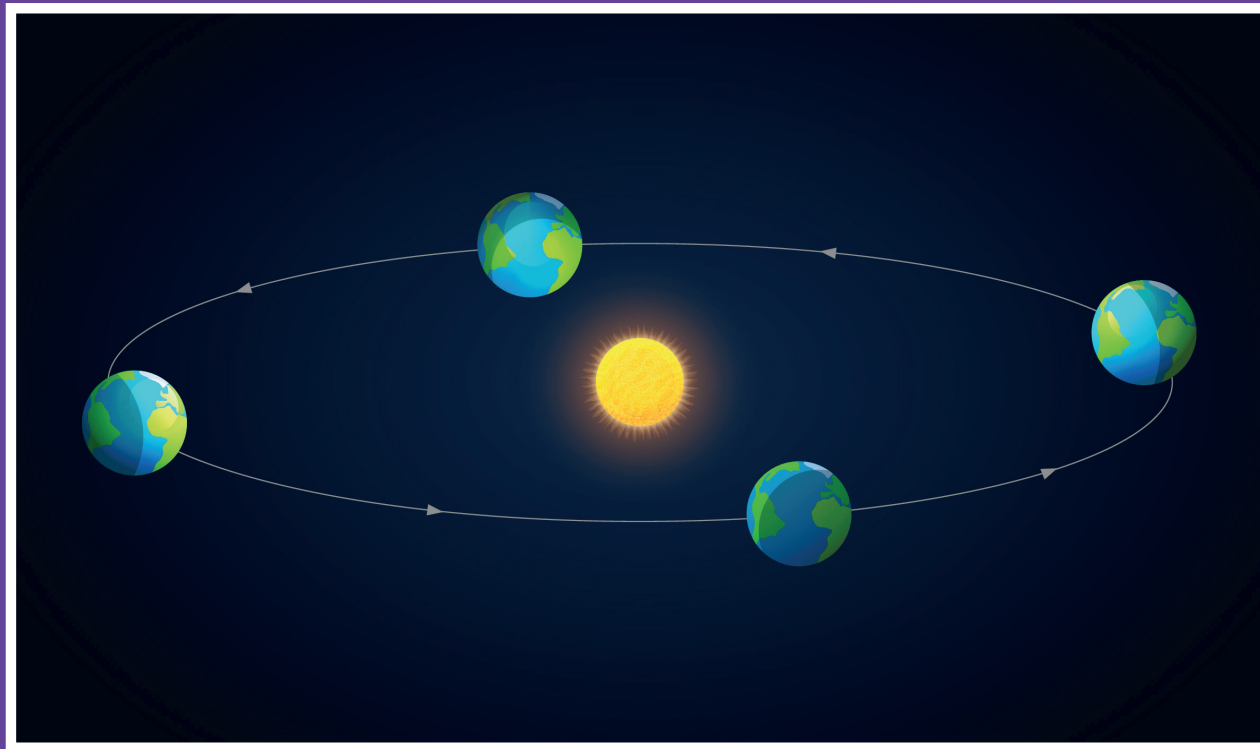


# Earth and Space: Lesson 2

## The Solar System

### Science KS2 Year 5



# Earth and Space: Lesson 2

**Science**

**Key Stage 2  
Year 5**

## **Learning Aims:**

- learn about the planets within our solar system
- learn how night and day occur

## **Curriculum Links:**

Pupils should be taught to:

- describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

## **Keyword Vocabulary**

Rotate. Orbit. These were also in lesson 1.

**Axis. Gibbous moon.** These can also be found at the end of this PDF.

**Axis**

**Rotate**

**Gibbous  
moon**

**Orbit**



This lesson develops the previous lesson's learning about the solar system. It introduces all the planets in our solar system, the length of their orbit and explains the cycle of the moon. The main focus of the lesson is how day and night occur.

The lesson includes a practical demonstration. You may wish to use a globe and a torch, spinning the globe and showing the children how parts of the planet pass in and out of the light.

To demonstrate the Earth orbiting the sun, and the moon orbiting the Earth, you can use three balls: football (the sun), tennis (the Earth) and table-tennis ball (the moon). Use a rope to demonstrate both orbits.

Then ask the children to complete a worksheet to draw and annotate a diagram on how day and night are formed. The worksheet is on pages 5 and 6 of this PDF.

The lesson ends by introducing sundials, which you will use in the next lesson. The iChild website has a popular sundial craft: Make a Sundial Craft. <http://www.ichild.co.uk/activities/view/6kRrs9N85gUleDZTPLgcjs/Make-a-Sundial>

### **PowerPoint Presentation**

The accompanying PowerPoint has the following learning points:

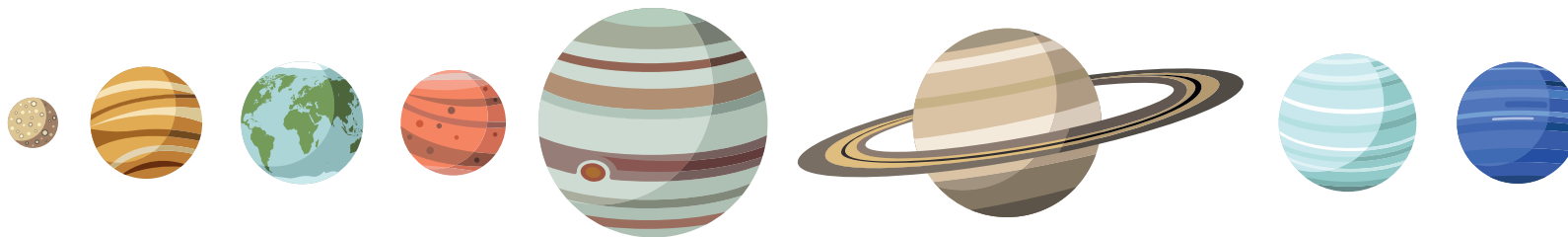
- Slides 1 and 2 introduce the lesson
- Slide 3 explains that our sun is the centre of our solar system. It is presented as an opportunity for classroom discussion.
- Slide 4 introduces the individual planets in our solar system.
- Slide 5 shows a mnemonic to help remember the planets: My Very Excellent Mother Just Served Us Noodles.
- Slide 6 explains a planet's orbit.
- Slide 7 shows the children how long each planet takes to complete its orbit.
- Slide 8 explains Earth's orbit, and why we have a leap year.



- Slide 9 explains why seasons occur.
- Slides 10 to 12 explain how day and night are formed.
- Slides 13 to 15 discuss the moon's orbit around the Earth.

### Activity

- Slide 16 introduces your practical demonstration.
- Slide 17 shows a screengrab of the worksheet (on the following pages), to support the lesson.
- Slide 18 introduces the sundial, which will be a useful link to the following lesson.
- Slide 19 recaps the learning.



# How do day and night occur?

Draw a diagram and write your explanation.

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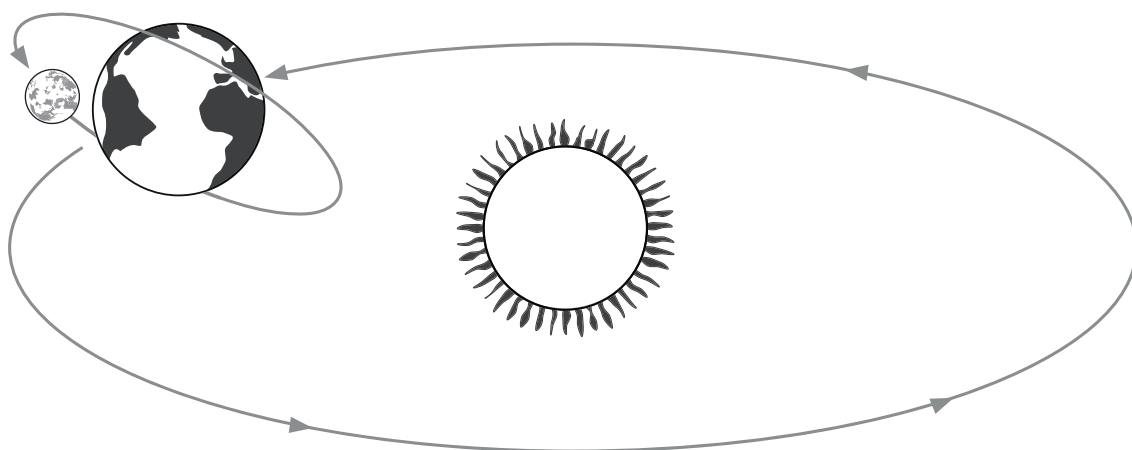
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## Earth and Space: Lesson 2



How long does it take the Earth to orbit the sun?

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Why do we have leap years?

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Why is it day in one part of the world while it is night time in another?

How does this link to the rotation of the Earth?

(You can research sources (books and websites) to help.)

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# Earth and Space: Keywords Flashcards



**Rotate**

**Orbit**

**Axis**

**Gibbous  
moon**



# Axis



# Gibbous moon

