



Foxes Class Medium Term Planning for Science Spring Term 2023

Topic: A Journey Across Europe

Earth and Space

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;
- describe the sun, Earth and moon as approximately spherical bodies;
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

This topic will be continually developed throughout the curriculum every day. My classroom and the school building will be accessed daily and children will be supported to make transitions.

There will be specific planned opportunities to support the children's progress and may be altered to suit the needs of the children during the term.

Pupils will:

- Name at least two different shapes the Earth was thought to be.
- Identify scientific evidence that has been used to support or refute ideas.
- Describe some features of the planets.
- Place the planets in the solar system in the correct order.
- Explain theories of planetary movement in the solar system using evidence.
- Explain using evidence how night and day occur.
- Explain why night and day occur at different times in different places on Earth.
- Write a conclusion which explains my findings.
- Explain how the Earth and Moon move relative to the Sun.

Vocabulary -

Earth, Sun, Moon, Planet, Stars, solar systems, Jupiter, Mars, Venus, Mercury, Saturn, Uranus, Neptune, Pluto, dwarf planet, movement, rotate, orbit, axis, spherical, sphere, night, day, light, heat, universe, solar

<u>Lesson 1 - Link it.</u>	<u>Lesson 2 - Learn it</u>	<u>Lesson 3 - Learn it</u>	<u>Lesson 4 - Learn it</u>	<u>Lesson 5 - Learn it</u>	<u>Lesson 6 - Learn it</u>
<u>Our Earth</u>	<u>The planets</u>	<u>The planets</u>	<u>Orbit or rotate?</u>	<u>Night and Day</u>	<u>Movement of the moon</u>
What do we know about our Earth? Flat and Spherical.	- Introduction to the planets. - Whole class - make large planets for the display.	- Line pupils up in order of the planets (using footballs). - Draw a map of the planets and label them.	I can explain how the planets orbit the sun. - Role play the planets orbiting the sun (watch video). - All make models out of clay of planets orbiting	To explain night and day and the apparent movement of the sun. Make a sun dial to represent the shadow of the earth's	To recap information so far. To develop and make models of the moon's orbit of the Earth.
Some to complete scientific ideas of spherical planets.					
Some to make spherical paper mâché earth					

			the sun. Draw planetary circles	movement around the sun into day and night.	
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<u>Lesson 7 - Show it</u> <u>Fact files</u> - Recap planets through PowerPoint Create a fact file of a planet of choice.	<u>Lesson 8 - Know it</u> <u>School trip?</u>			-	-
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Substantive Knowledge (Content)	Disciplinary Knowledge (Skills)
<p><u>KS1 - Science</u></p> <p>Asking simple questions and recognising that they can be answered in different ways.</p> <p>Explore the world around them, leading them to ask some simple scientific questions about how and why things happen.</p> <p>Experience different types of scientific enquiries, including practical activities.</p> <p><u>KS2 - Science</u></p> <p>Start to raise their own relevant questions about the world around them in response to a range of scientific experiences;</p>	<p><u>EYFS - C&L - Listening, Attention and Understanding</u> Make comments about what they have heard and ask questions to clarify their understanding.</p> <p><u>EYFS - UTW - The Natural World</u> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p><u>KS1 - Science</u> Asking Questions, children can: a explore the world around them, leading them to ask some simple scientific questions about how and why things happen; b begin to recognise ways in which they might answer scientific questions; c ask people questions and use simple secondary sources to find answers; d experience different types of scientific enquiries, including practical activities; e talk about the aim of scientific tests they are working on.</p> <p>Identifying, Classifying, Recording and Presenting Data a use simple features to compare objects, materials and living things; b decide how to sort and classify objects into simple groups with some help; c record and communicate findings in a range of ways with support;</p>

Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions.

Using Scientific Evidence and Secondary Sources of Information

Identifying differences, similarities or changes related to simple scientific ideas and processes.

Using straightforward scientific evidence to answer questions or to support their findings.

Children can:

a make links between their own science results and other scientific evidence;

b use straightforward scientific evidence to answer questions or support their findings;

c identify similarities, differences, patterns and changes relating to simple scientific ideas and processes;

d recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations

d sort, group, gather and record data in a variety of ways to help in answering questions such as in simple sorting diagrams, pictograms, tally charts, block diagrams and simple tables.

KS2 - Science

• Ask relevant questions.

• Gather, record, classify and present data in a variety of ways to help in answering questions.

• Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.

• Report on finding from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Physics:

• Explain that unsupported objects fall towards the Earth because of the force gravity acting between the Earth and the falling object.

• Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces.

• Describe the sun, moon and earth as approximately spherical bodies.

Progression of Learning

'Link It'	'Learn It'	'Check It'	'Show It'	'Know It'
Explore the Earth and planet shapes.	Explore and discuss the planets orbit and order the planets.	Research information to clarify what we have learned so far.	Draw conclusions. Choose planet to develop fact files.	Develop knowledge during school trips. Apply learned knowledge to others.