



# Tarvin Primary School

## Science National Curriculum Mapping



# National Curriculum Mapping

## How this document works:

This is a whole school overview, demonstrating where the objectives, laid out in the EYFS framework or the National Curriculum, are covered.

## EYFS

The table on page 3 demonstrates how each unit of work links to the Early Learning Goals and the Development Matters 2021 statements.

The table on page 7 maps the working scientifically objectives to the science units taught in the EYFS.

## KS1 & 2

The tables on pages XXX map the National Curriculum objectives for substantive knowledge to the science units taught.

The tables on pages XXX identify the working scientifically objectives from National Curriculum for each age phase and how they are mapped to each science unit taught.

The tables on pages XXX map the five types of scientific enquiry to the science units taught in each age phase.

# EYFS

Unit of Work	<b>Early years outcomes: Prime Areas</b> Development Matters 2021 statements <i>Early Learning Goals</i>	<b>Early years outcomes: Specific Areas</b> Development Matters 2021 statements <i>Early Learning Goals</i>
Keeping Healthy	<p><b><u>Personal, Social and Emotional Development</u></b>  <b>ELG: Managing Self:</b> Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Manage their own needs.               <ul style="list-style-type: none"> <li>• Personal hygiene</li> </ul> </li> <li>- Know and talk about the different factors that support their overall health and wellbeing:               <ul style="list-style-type: none"> <li>• regular physical activity</li> <li>• healthy eating</li> <li>• toothbrushing</li> <li>• sensible amounts of ‘screen time’</li> <li>• having a good sleep routine</li> </ul> </li> </ul>	
Colour	<p><b><u>Communication and Language</u></b>  <b>ELG: Speaking:</b> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Learn new vocabulary</li> <li>- Ask questions to find out more and to check they understand what has been said to them</li> <li>- Articulate their ideas and thoughts in well-formed sentences</li> <li>- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</li> </ul>	<p><b><u>Understanding the World</u></b>  <b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Describe what they see, hear and feel whilst outside.</li> <li>- Explore the natural world around them</li> </ul> <p><b><u>Expressive Arts and Design</u></b>  <b>ELG: Creating with Materials:</b> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li> </ul>
Celebrations	<p><b><u>Communication and Language</u></b>  <b>ELG: Speaking:</b> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary</p>	<p><b><u>Understanding the World</u></b>  <b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures of animals and plants</p>

	<p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Learn new vocabulary</li> <li>- Ask questions to find out more and to check they understand what has been said to them</li> </ul>	<p><b>ELG: The Natural World:</b> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Understand the effect of changing seasons on the natural world around them</li> </ul>
<p>Environment &amp; Sustainability - Oceans</p>	<p><b>Communication and Language</b></p> <p><b>ELG: Speaking:</b> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Learn new vocabulary</li> <li>- Ask questions to find out more and to check they understand what has been said to them</li> </ul>	<p><b>Understanding the World</b></p> <p><b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p><b>ELG: The Natural World:</b> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p><b>ELG: The Natural World:</b> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Explore the natural world around them</li> <li>- Recognise some environments that are different from the one in which they live</li> </ul>
<p>Under the sea</p>	<p><b>Communication and Language</b></p> <p><b>ELG: Speaking:</b> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Learn new vocabulary</li> <li>- Ask questions to find out more and to check they understand what has been said to them</li> </ul>	<p><b>Understanding the World</b></p> <p><b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p><b>ELG: The Natural World:</b> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p><b>ELG: The Natural World:</b> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Explore the natural world around them</li> <li>- Recognise some environments that are different from the one in which they live</li> </ul>
<p>People Who Help Us</p>	<p><b>Personal, Social and Emotional Development</b></p> <p><b>ELG: Managing Self:</b> Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> <p><b>Development Matters:</b></p>	<p><b>Understanding the World</b></p> <p><b>ELG: The Natural World:</b> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p><b>Development Matters:</b></p>

	<ul style="list-style-type: none"> <li>- Manage their own needs. <ul style="list-style-type: none"> <li>• Personal hygiene</li> </ul> </li> <li>- Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> <li>• regular physical activity</li> <li>• healthy eating</li> <li>• toothbrushing</li> <li>• sensible amounts of 'screen time'</li> <li>• having a good sleep routine</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Explore the natural world around them</li> </ul> <p><b>ELG: Past and Present:</b> Talk about the lives of the people around them and their roles in society</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Name and describe people who are familiar to them</li> </ul>
All About Me	<p><b><u>Personal, Social and Emotional Development</u></b></p> <p><b>ELG: Building Relationships:</b> Work and play cooperatively and take turns with others.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Build constructive and respectful relationships</li> </ul>	<p><b><u>Understanding the World</u></b></p> <p><b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p><b>ELG: The Natural World:</b> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Explore the natural world around them</li> <li>- Recognise some environments that are different from the one in which they live</li> </ul>
Traditional tales	<p><b><u>Communication and Language</u></b></p> <p><b>ELG: Speaking:</b> Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Use new vocabulary in different contexts</li> <li>- Engage in story times</li> </ul>	<p><b><u>Understanding the World</u></b></p> <p><b>ELG: The Natural World:</b> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p><b>ELG: The Natural World:</b> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Explore the natural world around them</li> <li>- Recognise some environments that are different from the one in which they live</li> </ul>
Animals	<p><b><u>Communication and Language</u></b></p> <p><b>ELG: Listening, Attention and Understanding:</b> Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions</p> <p><b>Development Matters:</b></p> <ul style="list-style-type: none"> <li>- Engage in non-fiction books</li> </ul>	<p><b><u>Understanding the World</u></b></p> <p><b>ELG: The Natural World:</b> Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p><b>ELG: The Natural World:</b> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p>

- Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary.

**Physical Development**

**ELG: Gross Motor Skills:** Move energetically, such as running, jumping, dancing, hopping, skipping and climbing

**Development Matters:**

- Revise and refine the fundamental movement skills they have already acquired:
  - rolling • crawling • walking • jumping • running • hopping
  - skipping • climbing
- Progress towards a more fluent style of moving, with developing control and grace

**ELG: The Natural World:** Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

**Development Matters:**

- Explore the natural world around them
- Recognise some environments that are different from the one in which they live
- Understand the effect of changing seasons on the natural world around them

Minibeasts and Growing

**Communication and Language**

**ELG: Speaking:** Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary

**Development Matters:**

- Learn new vocabulary
- Ask questions to find out more and to check they understand what has been said to them

**Understanding the World**

**ELG: The Natural World:** Explore the natural world around them, making observations and drawing pictures of animals and plants

**ELG: The Natural World:** Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

**Development Matters:**

- Understand the effect of changing seasons on the natural world around them
- Explore the natural world around them

**Expressive Arts and Design**

**ELG: Creating with Materials:** Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

**Development Matters:**

- Explore, use and refine a variety of artistic effects to express their ideas and feelings.

## EYFS – Working Scientifically

<b>Working Scientifically (From PLAN EYFS matrices)</b>	<i>Keeping Healthy</i>	<i>Colour</i>	<i>Celebrations</i>	<i>Environment &amp; Sustainability – Oceans</i>	<i>Under the Sea</i>	<i>People Who Help Us</i>	<i>All About Me</i>	<i>Traditional Tales</i>	<i>Animals</i>	<i>Minibeasts and Growing</i>
Ask questions		✓			✓	✓		✓	✓	
Make observations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sort into groups	✓			✓	✓	✓			✓	✓
Talk about what they are doing			✓	✓		✓	✓	✓	✓	✓
Record their observations	✓		✓	✓	✓	✓	✓			✓

## KS1 – Working Scientifically

<b>National Curriculum Objectives</b>	<i>Year 1: Animals inc. humans</i>	<i>Year 1: Materials</i>	<i>Year 1: Plants</i>	<i>Year 1: Environment &amp; Sustainability – Climate Change</i>	<i>Year 2: Animals inc. humans</i>	<i>Year 2: Materials</i>	<i>Year 2: Plants</i>	<i>Year 2: Living Things &amp; their Habitats</i>	<i>Year 2: Environment &amp; Sustainability – Plastic Pollution</i>
Asking simple questions and recognising that they can be answered in different ways	✓	✓	✓	✓	✓		✓	✓	
Observing closely, using simple equipment	✓	✓	✓	✓	✓	✓	✓		✓
Performing simple tests	✓	✓		✓	✓	✓	✓		✓
Identifying and classifying	✓	✓	✓	✓	✓	✓	✓	✓	✓
Using their observations and ideas to suggest answers to questions	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gathering and recording data to help in answering questions.	✓	✓	✓		✓	✓	✓	✓	✓

## LKS2 – Working Scientifically

<b>National Curriculum Objectives</b>	<i>Curriculum A:</i> Animals inc. humans	<i>Curriculum A:</i> Forces & Magnets	<i>Curriculum A:</i> Rocks	<i>Curriculum A:</i> Environment & Sustainability – Deforestation	<i>Curriculum A:</i> Light	<i>Curriculum A:</i> Plants	<i>Curriculum B:</i> Animals inc. humans	<i>Curriculum B:</i> Electricity	<i>Curriculum B:</i> Environment & Sustainability – Carbon Footprints	<i>Curriculum B:</i> States of Matter	<i>Curriculum B:</i> Living Things & their Habitats	<i>Curriculum B:</i> Sound
Asking relevant questions and using different types of scientific enquiries to answer them	✓		✓	✓	✓		✓	✓	✓		✓	
Setting up simple practical enquiries, comparative and fair tests		✓	✓		✓	✓	✓			✓		✓
Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	✓	✓	✓		✓	✓	✓	✓				
Identifying differences, similarities or changes related to simple scientific ideas and processes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Using straightforward scientific evidence to answer questions or to support their findings	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

## UKS2 – Working Scientifically

<b>National Curriculum Objectives</b>	<i>Curriculum A:</i> Living Things & their Habitats	<i>Curriculum A:</i> Forces	<i>Curriculum A:</i> Earth & Space	<i>Curriculum A:</i> Environment & Sustainability – Renewable Energy	<i>Curriculum A:</i> Animals inc. humans	<i>Curriculum A:</i> Properties and Changes of materials	<i>Curriculum B:</i> Living Things & their Habitats	<i>Curriculum B:</i> Animals inc. humans	<i>Curriculum B:</i> Environment & Sustainability – Air Quality & Pollution	<i>Curriculum B:</i> Evolution & Inheritance	<i>Curriculum B:</i> Electricity	<i>Curriculum B:</i> Light
Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	✓	✓	✓			✓	✓	✓	✓	✓	✓	
Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate		✓	✓		✓	✓	✓	✓	✓		✓	✓
Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Using test results to make predictions to set up further comparative and fair tests		✓					✓					
Reporting and presenting findings from enquiries, including conclusions, causal relationships and	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓

explanations of and degree of trust in results, in oral and written forms such as displays and other presentations												
Identifying scientific evidence that has been used to support or refute ideas or arguments	✓	✓		✓		✓	✓		✓	✓		✓