



# Sylvester Primary Academy Science Curriculum Overview 2024-2025



	Autumn		Spring		Summer	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Nursery</b>	<p>Ogden Trust Science Talk books: Brown Bear, Brown Bear. WOW! Said the Owl Elmer</p> <p>Understanding the world: Learning about the seasons and the seasonal changes which occur at this time of year -Talk about what they see, hear &amp; feel</p> <p><u>Living Things- Animals (inc. humans &amp; plants)</u> -Identify &amp; name main parts -Name &amp; talk about different pets -Match &amp; name baby to adult pet -Learn to touch living things carefully</p>	<p>Ogden Trust Science Talk books: Peace at last</p> <p>Understanding the world: Learning about the seasons and the seasonal changes which occur at this time of year -Begin to talk about some likes/dislikes</p> <p><u>Living Things- Animals (inc. humans &amp; plants)</u> -Explore &amp; understand the use of some body parts -Name some woodland animals -Begin to explore different animal habitats linked to Autumn time</p>	<p>Ogden Trust Science Talk books: The Three little pugs Bear</p> <p>Understanding the world: <u>Living Things- Animals (inc. humans &amp; plants)</u> -Explore how to keep selves warm in Winter -Explore penguins &amp;/or polar bears and name body parts -Explore &amp; name other animals that swim in cold water/live in cold places -Explore some animal habitats linked to Winter theme -Look after birds in Winter</p>	<p>Ogden Trust Science Talk books: Mr Archimedes Bath Three Billy Goats Gruff</p> <p>Understanding the world: Learning about the seasons/seasonal changes which occur at this time of year -Talk about some likes/dislikes (wider vocabulary)</p> <p><u>Living Things- Animals (inc. humans &amp; plants)</u> -Begin to develop an understanding of life cycles: own growth sequence, name and match baby-adult farm animals, planting/observing seeds grow Naming basic parts of a flower</p>	<p>Ogden Trust Science Talk books: Pip &amp; Posy</p> <p>Understanding the world: More confident to talk about what they see, hear &amp; feel</p> <p><u>Living Things- Animals (inc. humans &amp; plants)</u> -Continue to develop an understanding of life cycles: caterpillar-butterfly -Learn to take care of living things in the outdoor space</p> <p><u>Materials</u> -Use all their senses in hands on exploration of a range of materials extending curiosity -Name common materials</p>	<p>Ogden Trust Science Talk books: What the Jackdaw Saw</p> <p>Understanding the world: Learning about the seasons and the seasonal changes which occur at this time of year -Talk about likes/dislikes giving reasons</p> <p><u>Living Things- Animals (inc. humans &amp; plants)</u> -Explore how to keep themselves cool in Summer -Sun safety -Name and talk about different wild animals-how they look and how they move e.g. jumping kangaroos, stomping elephants</p>

## Nursey continued

### Materials

-Begin to use some senses in hand on exploration of natural materials, developing curiosity: free exploration  
-Begin to explore collections of materials with similar &/or different properties: collect & name groups of Autumn objects

### How Things Work

-Explore how familiar things work: favourite toy  
-Explore different forces & to use language of push and pull

### Materials

-Begin to use some senses in hand on exploration of natural materials, developing curiosity: identifying likes/dislikes  
-Begin to explore collections of materials with similar &/or different properties: Experiment with grouping/sorting different objects by theme/property, e.g. Autumn collection

### How Things Work

-Explore how familiar things work: decoration  
-Continue to explore different forces & use language of push and pull

### Materials

-Begin to use all their senses in hand on exploration of natural materials, developing curiosity  
-Begin to talk about some properties of different materials: same/different, hard/soft, wet/dry, cold/warm etc  
-Begin to name some common materials: wood, plastic, metal...  
-Begin to notice & talk about how properties of materials change: ice-melting, water-freezing

### How Things Work

-Explore and talk about different forces they can feel

### Materials

-Explore collections of materials with similar and/or different properties  
-Begin to experiment with grouping/sorting different objects by property or material, e.g. things that float, sink etc

### How Things Work

-Explore mechanical toys & talk about how they move

-Describe properties of materials they like/dislike

### How Things Work

-Explore and talk about different forces they can feel (push/pull)

-Explore & talk about different to travel using different body parts: walk, run, jump, roll etc.  
-Become more independent to take care of living things in the outdoor space

### Materials

-Make some comparisons between materials  
-Begin to group materials & label  
--Begin to notice how properties of materials change, e.g. water gets warm in sun  
-Learn hope to make bubbles (Pip & Posy book)

### How Things Work

-Explore how vehicles travel on different gradients

<p><b>Reception</b></p>	<p>Ogden Trust Science Talk books: The Gruffalo's child (light &amp; dark/shadows)</p> <p><b>Shadows</b></p> <ul style="list-style-type: none"> <li>Torches, sources of light/silhouettes.</li> <li>Seasonal Change</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Identify, name and talk about different body parts (elbows, knee, eyebrows etc).</li> <li>Explore the senses and begin to understand their purpose (look, hear, feel/touch, taste, smell).</li> <li>Name different pets and some key features (e.g. paws).</li> <li>Use senses to explore the natural world.</li> <li>Begin to identify and name some different everyday materials (wood, metal, glass).</li> </ul>	<p>Ogden Trust Science Talk books: Look up! Astro Girl (Space &amp; Earth)</p> <p><b>Space</b></p> <ul style="list-style-type: none"> <li>Google Earth</li> <li>Making Planets</li> <li>Seasonal Change</li> <li>Meteor Showers</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Explore how different body parts work (bend, stretch, point).</li> <li>Understand how humans grow - sequence from a baby to an adult in photographs. Talking about key changes.</li> <li>Begin to recognise and name some familiar plants and animals in the local environment (oak tree, squirrel, rabbits).</li> <li>Begin to understand the effects of the changing seasons in the</li> </ul>	<p>Ogden Trust Science Talk books: Teatime around the world (Materials)</p> <p><b>Magnets</b></p> <ul style="list-style-type: none"> <li>Racing with magnets.</li> <li>Seasonal Change</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Continue to observe and describe seasonal changes.</li> <li>Name different wild animals that live in cold and hot places.</li> <li>Observe and talk about the different characteristics of each animal.</li> <li>Name and talk about different habitats of animals in cold and hot places.</li> <li>Discuss the contrasting environments in focus texts.</li> <li>Describe what they see, hear and feel whilst outside with increasing confidence and</li> </ul>	<p>Ogden Trust Science Talk books: Goldilocks &amp; the three bears The princess and the Pea (Materials/ changing state/ insulation)</p> <p><b>Growing and Changing:</b></p> <ul style="list-style-type: none"> <li>Life Cycle of Duckling</li> <li><b>Plants:</b> how and what plants need to grow,</li> <li>Parts of a plant (flowering) and varieties of plants.</li> <li>Understand different types of plants.</li> <li>Seasonal Change</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Continue to observe and describe seasonal changes.</li> <li>Begin to and talk about what animals need to survive.</li> <li>Observe and begin to talk about the lifecycle of a seed/plant.</li> </ul>	<p>Ogden Trust Science Talk books: Lumberjack's bear How to find gold (floating &amp; sinking)</p> <p><b>Reflective materials</b></p> <ul style="list-style-type: none"> <li>Sensory Tent-coloured lenses.</li> <li>Seasonal Change</li> <li>Floating &amp; sinking</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Name some different sea life creatures (turtle, pelican etc).</li> <li>Understand the need to respect and care for the natural environment.</li> <li>Begin to sort and group different materials - recycling (glass, wood, plastic).</li> <li>Identify and name some minibeasts and animals that have wings - understand why animals may have wings.</li> </ul>	<p>Ogden Trust Science Talk books: Dachy's Dear (sound and hearing) My Ocean is Blue (colour/ senses/ materials)</p> <p><b>Animals &amp; Birds</b></p> <ul style="list-style-type: none"> <li>Naming different animals and birds e.g. explore different breeds and explore similarities and differences. (Preparation for learning about classification in Year 1)</li> <li>Caring for animals (e.g. Pet shop/Farm).</li> <li>Seasonal Change</li> </ul> <p><b>The Natural World:</b></p> <ul style="list-style-type: none"> <li>Develop an understanding of the differences between wild animals and farm animals and discuss.</li> <li>Name different farm animals (mothers and babies).</li> </ul>
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<p><b>Reception continued</b></p>	<p>Understand 'same' and 'different' in relation to materials.</p> <p><b>Provision opportunities:</b> Light &amp; night/shadows Seasons/Autumn</p>	<p>world around them.</p> <p>Use senses to explore the natural world, developing concentration and observational skills (autumn objects: leaves, conkers etc).</p> <p><b>Provision opportunities:</b> Space/The Night Sky</p>	<p>a wider range of vocabulary.</p> <p>Explore and talk about the properties of water (ice, snow - hard, soft, freeze, melt).</p> <p><b>Provision opportunities:</b> Look at natural and man-made features - inventions (physical and human features year 1 link)</p>	<ul style="list-style-type: none"> <li>▪ Name some key parts (seed, plant, stem).</li> <li>▪ Name elements of how to plant/grow a plant (seed, soil, water, sun etc.)</li> <li>▪ Name some key features of plant growth.</li> <li>▪ Talk about the importance of plants and how we should handle living things with care.</li> <li>▪ Discuss similarities and differences between flowers/plants/seeds</li> </ul> <p>Observe, predict and talk about the lifecycle of a duckling - watching ducklings hatch from eggs.</p> <p><b>Provision opportunities:</b> Seasons/spring New life/life cycles/ducklings. Seeds and growing plants. Insects/minibeast. Cities and rural areas.</p>	<p><b>Provision opportunities:</b> Seaside/sea life. Autumnal nature. Features of a map. Seasons/Summer</p>	<p><b>Provision opportunities:</b> Seasons/summer. Animals - where they live/what they eat etc. (farm v.s wild).</p>
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Key Stage 1  Cycle A 2023-2024	Physics Investigating seasonal changes - covered across the year in both cycles				
	Biology Animals including humans Body parts and senses	Biology Animals including humans Naming and classifying a wide variety of animals	Biology Plants Identify common British trees and plants. Key parts of plants including trees,	Chemistry Everyday Materials Identify and name everyday materials and their properties Distinguish between an object and the material it is made from.	
Key Stage 1  Cycle B 2024-2025	Physics Investigating seasonal changes- covered across the year in both cycles				
	Biology Living things and their habitats  Living, dead, never alive. Microhabitats.	Chemistry Everyday Materials  Distinguish between an object and the material it is made from. Identify and name everyday materials. Uses of materials, changing shape of materials	Biology Animals including humans  Offspring, needs for survival, healthy living	Biology Plants  How seeds grow into plants, what plants need to grow. Identify and describe basic structure of common plants including trees.	Biology Living things and their habitats  Living/dead, habitats, mini-beasts, food chains
Year Three	Biology Plants - gathering evidence of plant life cycles taught across the year				
	Biology Animals including humans  Nutrition, skeletons and muscles.	Chemistry Rocks and soils  Compare and grouping rocks based on their appearance and simple physical properties. Fossils and soils.	Physics Forces  Compare how things move on different surfaces. Magnetism and magnetic materials.	Biology Plants  Functions of the parts of flowering plants Requirements of variety of plants for life and growth. Investigate the way in which water is transported within plants. Role of flowers in the life cycle of flowering plants.	Physics Light  Requirement of light to see, darkness is the absence of light, light is reflected from surfaces. Sun safety Shadows

<b>Year Four</b>	<b>Biology</b>					
	<i>Living things and their habitats - naming and identifying living things in the local environment taught across the year</i>					
	<b>Physics</b> <b>Electricity</b>	<b>Chemistry</b> <b>States of matter</b>		<b>Biology</b> <b>Animals including humans</b>	<b>Biology</b> <b>Habitats</b>	<b>Physics</b> <b>Sound</b>
	Common electrical appliances. Construct and name parts in a simple series electrical circuit. Switches, conductors and insulators.	Compare and group materials into solids, liquids and gases. Observing and measuring changes of state. The role of evaporation and condensation in the water cycle.		Human digestive system. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains. Identify carnivores, herbivores and omnivores.	Living things can be grouped in a variety of ways. Classification keys. Environmental changes and their impact on living things.	How sounds are made. How vibrations travel through a medium to the ear. Pitch and volume.
<b>Year Five</b>	<b>Biology</b> <b>Living things and their habitats</b>	<b>Biology</b> <b>Animals including humans</b>	<b>Physics</b> <b>Forces</b>	<b>Physics</b> <b>Earth and Space</b>	<b>Chemistry</b> <b>Properties of materials</b>	<b>Chemistry</b> <b>Changes of materials</b>
	Describe the difference in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some animals and plants.	Changes as humans develop to old age.	Gravity, air resistance, water resistance and friction. Mechanisms including gears, levers and pulleys.	Movement of the Earth, and other planets, relative to the Sun in the solar system. Movement of the moon in relation to the Earth Day and night.	Compare and group everyday materials including by their hardness, solubility, transparency, conductivity and response to magnets. Know that some materials dissolve in liquid to form a solution. Separating mixtures. Uses of materials based on comparative tests.	Dissolving, mixing and changes of state are reversible changes. Some changes result in the formation of new materials, and that this kind of change is not usually reversible.

Year Six	Physics Electricity	Biology Living things and their habitats	Biology Animals including humans	Biology Evolution and inheritance	Physics Light
	<p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>	<p>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p>	<p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>Impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.</p> <p>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>