



# Churchside Federation Long Term Planning

## Gooderstone

### Science 2024-2025



2024-2025	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Nursery</b>	<ul style="list-style-type: none"> <li>Use all their senses in hands on exploration of natural materials</li> <li>Plant seeds and care for them as they grow</li> <li>understand the key features of the life cycle of a plant or animal</li> <li>Explores and talks about different forces they feel</li> <li>Talk about changes they observe in materials and the natural world</li> <li>Explore different materials</li> </ul>					
<b>Reception</b>	<ul style="list-style-type: none"> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>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.</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>					
	<b>Themes:</b> Outside/Inside & Knowing Yourself - Seasons (around the outside of the Owls Promises) - Habitats - Linked to Kapiti Plain Writing Root. - Human body - Space - Linked to writing roots book Look Up.	<b>Themes:</b> Talents and Powers & Sowing A Seed - Seasons (around the outside of the Owls Promises) - Plants and Growing - tomatoes linked to Writing Root book. - Vocab of materials - opaque and translucent & properties sorting (link to making gits/DT) - boat. Floating and sinking. - Incubator - hatching eggs.			<b>Themes:</b> Celebrating Self & Family & Friends - Seasons (around the outside of the Owls Promises) - Forces and magnets - States of matter - Life Cycles - Linked to Oi Frog	
<b>Year One/ Two</b>	<b>Destruction and Preservation:</b> Animals including Humans  Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. □ Identify and name a variety of common animals that are carnivores, herbivores and omnivores	<b>Space and Our World:</b>  Y2 - Living Things and Their Habitats  Plants (Y1/2) Beegu - how would a plant survive in	<b>Similarities and Differences:</b> Animals including humans: Y2 - Know the basic stages in a life cycle for animals, including humans. Butterflies/tadpoles/chicks	<b>Change and Relationships:</b> Plants Seasonal Change (Y1)	<b>Fantasy Journeys:</b> Everyday materials (Y1/Y2)	<b>Structure and Materials:</b> Everyday Materials Y2 - uses of everyday materials (linked to buildings and sculpture in art).



# Churchside Federation Long Term Planning

## Gooderstone

### Science 2024-2025



	<p>Know that animals, including humans, have offspring which grow into adults</p> <p>Find out and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>(Y1/2)</p>	space?				
<b>Year Three/four/five/six</b>	<b>Crime and Punishment</b>	<b>Bravery and Courage</b>	<b>Unearthing discoveries</b>	<b>Legends and Folklore</b>	<b>Seaside Dreams</b>	<b>Solving Mysteries</b>



# Churchside Federation Long Term Planning

## Gooderstone

### Science 2024-2025



	<b>Electricity/ Forces</b>	<b>Earth and Space</b>	<b>Plants/ Living things</b>	<b>Animals including humans/ Evolution</b>	<b>Materials/ states of matter</b>	<b>Light/ Sound</b>
	<p>Year 3: compare how things move on different surfaces</p> <p>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</p> <p>observe how magnets attract or repel each other and attract some materials and not others</p> <p>compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>describe magnets as having 2 poles</p> <p>predict whether 2 magnets will attract or repel each other, depending on which poles are facing.</p> <p>Year 4: identify common appliances that run on electricity</p>	<p>Year 5: describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>describe the movement of the Moon relative to the Earth</p> <p>describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.</p>	<p>Year 3: identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>investigate the way in which water is transported within plants</p> <p>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>	<p>Year 3: identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p> <p>identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>Year 4: describe the simple functions of the basic parts of the digestive system in humans</p> <p>identify the different types of teeth in humans and their simple functions</p>	<p>Year 4: compare and group materials together, according to whether they are solids, liquids or gases</p> <p>observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> <p>Year 5: compare and group together everyday materials</p>	<p>Year 3: recognise that they need light in order to see things and that dark is the absence of light</p> <p>notice that light is reflected from surfaces</p> <p>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>recognise that shadows are formed when the light from a light source is blocked by a solid object</p> <p>find patterns in the way that the size of shadows change.</p> <p>Year 4: identify how sounds are made, associating some of them with something vibrating</p> <p>recognise that vibrations from sounds travel</p>



# Churchside Federation Long Term Planning

## Gooderstone

### Science 2024-2025



	<p>construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Year 5: explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p>		<p>Year 4: recognise that living things can be grouped in a variety of ways</p> <p>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>Year 5: describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>describe the life process of reproduction in some plants and animals.</p>	<p>construct and interpret a variety of food chains, identifying producers, predators and prey.</p> <p>Year 5: describe the changes as humans develop to old age.</p> <p>Year 6: identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>recognise the 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</p>	<p>on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>give reasons, based on evidence from comparative and fair tests, for the particular uses of</p>	<p>through a medium to the ear</p> <p>find patterns between the pitch of a sound and features of the object that produced it</p> <p>find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>recognise that sounds get fainter as the distance from the sound source increases</p> <p>Year 6: recognise that light appears to travel in straight lines</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</p>
--	--	--	--	--	--	---



# Churchside Federation Long Term Planning

## Gooderstone

### Science 2024-2025



	<p>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p> <p>Year 6: 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>Year 6: 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>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>everyday materials, including metals, wood and plastic</p> <p>demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>	<p>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>
--	---	--	--	---	--	---



# Churchside Federation Long Term Planning Gooderstone Science 2024-2025



Events:

--