

# SCIENCE LONG TERM PLAN LKS2 - 2 year programme

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<u>Respecting our environment</u>	<u>Classification</u>	<u>Digestion</u>	<u>Electricity</u>	<u>Sound</u>	<u>States of matter</u>
First Year - Key skills						
Y 4	<ul style="list-style-type: none"> <li>Identify where humans have had an impact on an environment</li> <li>Identify ways that humans can damage an environment</li> <li>Identify ways in which humans can protect and improve environments</li> <li>Present their ideas and evidence in appropriate ways</li> <li>Use simple scientific vocabulary to describe their ideas and observations</li> <li>Draw simple conclusions about what they see</li> </ul>	<ul style="list-style-type: none"> <li>recognise that living things can be grouped in a variety of ways (plants: trees, grasses, flowers, ferns and mosses, vertebrates: fish, amphibians, reptiles, birds, and mammals. Invertebrates: snails and slugs, worms, spiders, and insects</li> <li>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</li> <li>recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>	<ul style="list-style-type: none"> <li>describe the simple functions of the basic parts of the digestive system in humans</li> <li>identify the different types of teeth in humans and their simple functions</li> <li>construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>	<ul style="list-style-type: none"> <li>Identify common appliances that run on electricity.</li> <li>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</li> <li>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.</li> <li>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</li> <li>Recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul>	<ul style="list-style-type: none"> <li>identify how sounds are made, associating some of them with something vibrating</li> <li>recognise that vibrations from sounds travel through a medium to the ear</li> <li>find patterns between the pitch of a sound and features of the object that produced it</li> <li>find patterns between the volume of a sound and the strength of the vibrations that produced it</li> <li>recognise that sounds get fainter as the distance from the sound source increases.</li> </ul>	<ul style="list-style-type: none"> <li>identify how sounds are made, associating some of them with something vibrating</li> <li>recognise that vibrations from sounds travel through a medium to the ear</li> <li>find patterns between the pitch of a sound and features of the object that produced it</li> <li>find patterns between the volume of a sound and the strength of the vibrations that produced it</li> <li>recognise that sounds get fainter as the distance from the sound source increases.</li> </ul>

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**Second Year - Key skills**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<u><b>Animal homes</b></u>	<u><b>Animals and skeletons</b></u>	<u><b>Forces and magnets</b></u>	<u><b>Plants</b></u>	<u><b>Light</b></u>	<u><b>Rocks</b></u>
Y 3	<ul style="list-style-type: none"> <li>Observe closely and identify animal homes</li> <li>Suggest suitable sites for animal homes, providing simple explanations for their choices using simple scientific vocabulary</li> <li>Provide homes and other methods to attract animals</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>identify that humans and some animals have skeletons and muscles for support, protection and movement.</li> </ul>	<ul style="list-style-type: none"> <li>compare how things move on different surfaces</li> <li>notice that some forces need contact between two objects, but magnetic forces can act at a distance</li> <li>observe how magnets attract or repel each other and attract some materials and not others</li> <li>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</li> <li>describe magnets as having two poles</li> <li>predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>	<ul style="list-style-type: none"> <li>identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers</li> <li>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</li> <li>investigate the way in which water is transported within plants</li> <li>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>	<ul style="list-style-type: none"> <li>state the difference between light sources and other shiny objects and name a number of light sources including the Sun</li> <li>recognise that they need light in order to see things and that dark is the absence of light</li> <li>notice that light is reflected from surfaces</li> <li>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</li> <li>recognise that shadows are formed when the light from a light source is blocked by a solid object</li> <li>find patterns in the way that the size of shadows change.</li> </ul>	<ul style="list-style-type: none"> <li>compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</li> <li>describe in simple terms how fossils are formed when things that have lived are trapped within rock</li> <li>recognise that soils are made from rocks and organic matter.</li> </ul>

<b>Resources needed</b>
Owl pellets, cameras or ipad,

