

**Burton Road Primary School
Science Knowledge Progression**

This document provides the progression of the knowledge that children will gain at each key stage. As the subject is split across a two-year cycle, all children will access vocabulary and learning objectives at their appropriate level, with added tasks to further stretch the understanding of those who require it. In some cases, knowledge will be taught in two consecutive years, to ensure that all children access all objectives. This may mean that children are learning objectives that they have previously learnt. In this case, children will again, be given tasks to further stretch and deepen this understanding. Where this is happening, it will be where subjects require more curriculum time e.g. where a unit is taught in both Y5 and Y6, it will be taught for two consecutive years.

Year Group	Plants	Animals, including humans	Everyday Materials / States of Matter	Seasonal Changes	Living Things and their Habitats	Rocks	Light	Forces and Magnets	Sound	Electricity	Earth and Space	Evolution and Inheritance
EYFS	<p>To know plants grow from seeds or bulbs.</p> <p>To know the basic parts of a plant.</p> <p>To know what a plant needs to grow.</p>	<p>To know basic parts of the body.</p> <p>To know we have 5 senses.</p> <p>To know how to stay healthy.</p> <p>To know the lifecycle of a hen.</p> <p>To know the difference between baby and adult animals and their names.</p> <p>To know about spiders and insects and name their body parts.</p> <p>To know characteristics of minibeasts.</p> <p>To know the lifecycle of a butterfly and a frog.</p>	<p>To know which materials are best to build houses.</p> <p>To sort objects that can and cannot sink or float.</p>		<p>To recognise that polar regions are cold, icy and not many plants grow there.</p> <p>To recognise that deserts are dry and sandy and very hot in the day and cold at night.</p> <p>To recognise rainforests are wet, hot and humid. Lot of trees and flowers grow there.</p> <p>To know about different things that live under the sea.</p> <p>To talk about similarities and different of sea creatures.</p>	<p>Dinosaur bones are known as fossils.</p>					<p>To know there are 8 planets and some of their names.</p>	<p>To know that dinosaurs are extinct.</p> <p>To identify if dinosaurs were plant or meat eaters.</p>
KS1	<p>Name some common wild and garden plants.</p> <p>Know the different between deciduous and evergreen trees.</p> <p>Understand plants have leaves, flowers, petals, fruit, roots, bulb, seed, trunk, braches, stem.</p> <p>Know that seeds and bulbs grow into mature plants.</p> <p>Know that plants need water, light and the right</p>	<p>Identify, name, draw and label the basic parts of the human body.</p> <p>Say which part relates to which sense.</p> <p>Humans have babies which grow into adults.</p> <p>Humans need water, air and food to survive.</p> <p>Know that humans need exercise and eat different types of food.</p> <p>Understand importance of washing hands and being hygienic.</p>	<p>Know that the name of something is different to what it is made from.</p> <p>Know what wood, plastic, glass, metal, water and rock feel/look like.</p> <p>Describe a material using soft, hard etc.</p> <p>Know how to group objects depending on their properties.</p> <p>Understand how some materials are better for some jobs than others e.g. waterproof.</p>	<p>Know the seasons and how they are different.</p> <p>Describe the weather in each season.</p> <p>Know that the length of day changes depending on the season.</p>	<p>Know what living, dead and never alive mean.</p> <p>Know that habitats give animals the things they need.</p> <p>Know some habitats and the animals that live within them e.g. woodlice under stones, logs.</p> <p>Know how animals get food from habitats such as other animals or plants.</p>							

	temperature to grow.	Know what fish, amphibians, reptiles, birds and mammals look like. Say whether an animal is a carnivore, herbivore or omnivore. Understand that animals have babies that grow into adults.	Know which objects can be changed by bending etc.		Know what a simple food chain is.							
LKS2	Describe what roots, stems, trunks, leaves and flowers do for plants. Know that different plants need different nutrients. Know how water is transported within plants. Understand the life cycle of a plant including pollination, seed formation and seed dispersal.	Know that animals and humans get nutrition from what they eat. Know that's humans and animals have skeletons and muscles. Know that body parts have different jobs such as support, protection and movement. Know the parts of the digestive system in humans. Know different types of teeth in humans. Use predators, producers and prey in food chains.	Know whether objects are solid, liquid or gas. Know that heating or cooling a material can change its state. Understand temperature is measured in Celsius. Know what evaporation and condensation are. Understand the water cycle.		Know that living things can be grouped in a variety of ways. Know how habitats can change through the year. Know what a classification key is and use it to group.	Recognise that there are different types of rocks with different properties. Know how fossils are formed. Know that soils are made from rocks and organic matter.	Know that we need light to see. Know that light is reflected off surfaces. Know that the sun can be dangerous and to protect eyes. Know how shadows are formed. Know that if objects move, shadows can change size.	Magnets can react without touching. Know how magnets can attract and repel each other. Know which materials are magnetic. Know that magnets have two poles.	Know sounds are made from vibrations. Know that the material of an object affects the pitch heard. Understand that strength of vibrations can affect the volume. Know how pitch and volume can be changed.	Know that appliances need electricity. Name cells, wires, bulbs, switches and buzzers in a circuit. Understand electricity needs a complete circuit and the job of a switch. Know what a conductor and insulator is. Know metals are good conductors.		
UKS2		Know how humans change as they get older including puberty. Name parts of the circulatory system. Describe what the heart, blood vessels and blood does. Understand diet, exercise, drugs and lifestyle can impact on bodies. Understand how nutrients are transported within humans and animals.	Understand what soluble, transparent, electrical and thermal conductivity are. Know that materials can dissolve to make a solution and how it can be reversed. Understand how filtering, sieving and evaporating can separate mixtures. Know which processes are reversible and		Understand what vertebrate and invertebrates are. Know the life cycle of a mammal, amphibian, insect and bird. Know how some plants and animals reproduce. Micro-organisms, plants and animals can be sub-divided in groups.		Light travels in straight lines. Objects are seen because they reflect light into our eyes. Understand how shadows have the same shape as object who cast them. Understand what a periscope is and how it works. Explore light phenomena of rainbows.	Understand Gravity and Sir Isaac Newton. Know the effects of air resistance, water resistance and friction. Know how levers, pulleys and gears work and let a smaller force have a greater effect.		Know that voltage affects brightness/volume. Use symbols to draw a simple circuit diagram.	Know the names and order of the planets. Know how the Earth and other planets move relative to the Sun. Know how the Moon moves. Know the Sun, Earth and Moon are approximately spherical. Explain day and night with the earth's rotation.	Fossils give information about millions of years ago. Offspring can vary to their parents. Know how animals adapt to their environment. Adaption can lead to evolution. Know who Mary Anning and Charles Darwin were and why they were famous.

			which are irreversible. How which materials are best for which uses.		Know who Carl Linnaeus is and what he did. Know why animals are classified based on their characteristic.								
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