

## Year 3 and 4 National Curriculum Science Objectives

<b>Forces and Magnets (Year 4)</b>	<b>Animals including Humans (Year 3/4)</b>	<b>States of Matter (Year 4)</b>
Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	Identify that animals, including humans need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from what they eat.	Compare and group materials together, according to whether they are solids, liquids or gases.
Observe how magnets attract or repel each other and attract some materials but not others.	Identify that humans and some animals have skeletons and muscles for support, protection and movement.	Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens (C)
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.	Describe the simple functions of the basic parts of the digestive system in humans.	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
Describe magnets as having two poles.	Identify the different types of teeth in humans and their simple functions.	<b>All Living Things (Year 4)</b> Identify and name a variety of living things in the local and wider environment, using classification keys to assign them to groups.
Predict whether two magnets will attract or repel each other depending on which poles are facing.	Construct and interpret a variety of food chains, identifying producers, predators and prey.	
<b>Rocks (Year 4)</b>	<b>Electricity (Year 4)</b>	Recognise that environments can change and that this can sometimes pose dangers to living things.
Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	
Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	Identify whether or not a lamp will light in a simple series circuit based on whether the lamp is in a complete loop with a battery.	Recognise that living things can be grouped in a variety of ways.
Recognise that soils are made from rocks and organic matter.	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.	<b>Plants (Year 3)</b> Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.
<b>Light (Year 4)</b>	Recognise some common conductors and insulators and associate metals with being good conductors.	Explore the requirements of plants for life and growth and how they vary from plant to plant.
Notice that light is reflected from surfaces.		Investigate in which way water is transported within plants.
Find patterns that determine the size of shadows.		Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
<b>Sound (Year 4)</b>		
Identify how sounds are made, associating some of them with something vibrating.	Recognise that vibrations from sounds travel through a medium to the ear.	
Recognise that sounds get fainter as the distance from the sound source increases.	Find patterns between the pitch of a sound and features of the object that produced it.	
Find patterns between the volume of a sound and the strength of the vibration that produced it.		

## Cheselbourne Village School Learning Ladder - Science

### Working Scientifically – Year 3/4

*(Same objectives used for investigations for each topic area.)*

#### **Can you...**

*Ask relevant questions and use different types of scientific enquiries to answer them?*

*Set up simple practical enquiries, comparative and fair tests?*

*Make systematic and careful observations and, where appropriate taking accurate measurements using standard units and using a range of equipment?*

*Gather, record, classify and present data in a variety of ways to help in answering questions?*

*Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables?*

*Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions?*

*Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions?*

*Identify differences, similarities or changes related to simple scientific ideas and processes?*

*Use straightforward scientific evidence to answer questions or support your findings?*