

Key Stage 2 YEAR 3 SCIENCE

National Curriculum KS2 Programme of Study	Chris Quigley Essential Skills Milestone 2	
<p><u>Working Scientifically</u> During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings. 	<p><u>1. To work scientifically</u></p>	<ul style="list-style-type: none"> • Ask relevant questions. • Set up simple practical enquiries and comparative and fair tests. • Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. • 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, 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 and suggest improvements, new questions and predictions for setting up further tests. • Identify differences, similarities or changes related to simple, scientific ideas and processes. • Use straightforward, scientific evidence to answer questions or to support their findings.

<p><u>Plants</u> Pupils should be taught to: <u>Recap</u>(identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers)</p> <ul style="list-style-type: none"> • 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 • investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	<p>To understand plants</p>	<p><u>Recap</u>(Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.)</p> <ul style="list-style-type: none"> • 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. • Investigate the way in which water is transported within plants. • Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
<p><u>Animals, including humans</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 • identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>To understand animals and humans</p>	<p>Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat.</p> <ul style="list-style-type: none"> • Identify that humans and some animals have skeletons and muscles for support, protection and movement.
<p><u>Rocks</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things that have lived are trapped within rock • recognise that soils are made from rocks and organic matter. 	<p>To investigate materials</p>	<p>Compare and group together different kinds of rocks on the basis of their simple, physical properties.</p> <ul style="list-style-type: none"> • Relate the simple physical properties of some rocks to their formation (igneous or sedimentary). • Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock.

<p><u>Light</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • recognise that they need light in order to see things and that dark is the absence of light • notice that light is reflected from surfaces • recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light source is blocked by a solid object • find patterns in the way that the size of shadows change. 	<p>To understand light and seeing</p>	<p>Notice that light is reflected from surfaces.</p> <ul style="list-style-type: none"> • Associate shadows with a light source being blocked by something; find patterns that determine the size of shadows.
<p><u>Forces and magnets</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • 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 magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<p>To understand movement, forces and magnets</p>	<p>Notice that some forces need contact between two objects and some forces act at a distance.</p> <ul style="list-style-type: none"> • Observe how magnets attract or repel each other and attract some materials and not others. • 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. <ul style="list-style-type: none"> • Describe magnets as having two poles • Predict whether two magnets will attract or repel each other.