

Science: Year Three

Essential Skills and Knowledge

- I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- I can 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
- I can investigate the way in which water is transported within plants
- I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
- I can 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
- I can identify that humans and some other animals have skeletons and muscles for support, protection and movement
- I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- I can describe in simple terms how fossils are formed when things that have lived are trapped within rock
- I can recognise that soils are made from rocks and organic matter
- I can recognise that they need light in order to see things and that dark is the absence of light
- I can notice that light is reflected from surfaces
- I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- I can recognise that shadows are formed when the light from a light source is blocked by a solid object
- I can find patterns in the way that the size of shadows change
- I can compare how things move on different surfaces
- I can notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
- I can observe how magnets attract or repel each other and attract some materials and not others
- I can 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
- I can describe magnets as having 2 poles
- I can predict whether 2 magnets will attract or repel each other, depending on which poles are facing

Communication Skills	Working together Collaborative Skills	Problem solving
<ul style="list-style-type: none"> • I can ask relevant questions and use different types of scientific enquiries to answer them • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • I can report on findings from enquiries, 	<ul style="list-style-type: none"> • I work with a small group to carry out an experiment and ensure that the principles of fair testing are in place • I can direct the work of others during an investigation • I can persuade others to have a go at my idea, 	<ul style="list-style-type: none"> • I can set up simple practical enquiries, comparative and fair tests • I can identify differences, similarities or changes related to simple scientific ideas and processes • I have my own ideas about how to find the

<p>including oral and written explanations, displays or presentations of results and conclusions</p> <ul style="list-style-type: none"> • I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • I can use straightforward scientific evidence to answer questions or to support my findings. 	<p>even though they may not readily agree with the idea in the first place</p>	<p>answer to a question</p> <ul style="list-style-type: none"> • I can carry out a fair test with some help • I think of the equipment I will need to carry out an investigation • I can carry out tests on rocks in order to identify them • I can use keys to classify rocks and soils • I can identify different types of rocks by doing a variety of tests on them • I can set up an investigation to test the strength of different types of magnets
<h3 style="text-align: center;">Application of number</h3>		<h3 style="text-align: center;">Information Technology</h3>
<ul style="list-style-type: none"> • I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • I make careful observations and measure: • Length, Mass, Capacity using standard measures • I can identify and group animals with and without skeletons and observe and compare their movement • I can record my results in tables, charts, graphs and pictograms • I look for patterns in my recorded measurements and try to explain them • I can interpret data about the factors that affect plant growth <p>I can read the intervals on different types of newton meters when investigating forces</p> <p>I can measure shadow length and look for patterns to explain what happens to shadows when a light source moves</p>	<ul style="list-style-type: none"> • I use a spreadsheet to collect data and use this to draw charts or graphs • I use the computer to play science games in which I use my knowledge and understanding to find out answers • I can use various sources to research • I can use digital media to record changes • I can read and interpret data presented electronically • I can read and interpret data presented electronically • I can use a branching database from a software package • I can use a key to identify living things from a software package • I can use sensing equipment to make observations and readings of temperature • I use ICT to explain my hypothesis, my methods and my results • I know that a database can be searched by field • I can use a data logger to collect data 	

