



	By the end of Year 4 children should be able to...	By the end of Year 5 children should be able to...	Children working at a mastery level in year 5 should...
Thinking Scientifically	<ul style="list-style-type: none"> Record findings using simple scientific language, drawings and labelled diagrams Report on findings including displays and presentations Gather data Set up simple practical enquiries, comparative and fair tests Present data in a variety of ways Report on findings from enquiries, including presentation of results and conclusions Use results to draw simple conclusions Identify differences and similarities related to simple scientific ideas and processes Identify changes related to simple scientific ideas and processes Make careful observations Make systematic observations Record findings using labelled diagrams and tables 	<ul style="list-style-type: none"> Record data and results using scientific diagrams and labels and models Present findings in written form and displays Record data using scatter graphs, bar and line graphs and tables Take measurements, using a range of scientific equipment, with increasing accuracy and precision Report findings, including oral explanations of results Identify scientific evidence that has been used to support ideas Use test results to make predictions to set up further comparative and fair tests Reporting and presenting findings Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary 	

	<ul style="list-style-type: none"> • Ask relevant questions and use a scientific enquiry to answer them • Make systematic and careful observations • Gather and record data to help in answering questions • Report on findings orally • Present data in a variety of ways to help in answering questions • Make accurate measurements using a range of equipment, for example data loggers • Use results to draw simple conclusions and suggest improvements and predictions for setting up further tests • Use straightforward scientific evidence to answer questions or support their findings 	<ul style="list-style-type: none"> • Record results of increasing complexity using scientific diagrams, labels and tables 	
<p>Biology- Animals Including Humans</p>	<ul style="list-style-type: none"> • Describe the simple functions of the basic parts of the digestive system in humans • Identify the different types of teeth in humans and their simple functions • Explore the part that flowers play in the life cycle of flowering 	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age 	

	plants, including pollination, seed formation and seed dispersal		
Biology- Living Things and their Environment	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 	<ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird 	
Physics- Earth, Moon and Sun	<ul style="list-style-type: none"> Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit Identify scientific evidence: talk about how scientific views have developed over time (UpperKS2) 	<ul style="list-style-type: none"> Describe the movement of the Earth, and other planets, relative to the Sun in the solar system Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky Describe the movement of the Moon relative to the Earth 	

Chemistry- Properties and changes of materials

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, brick, rock, paper and cardboard for particular uses
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Physics- Forces	<ul style="list-style-type: none"> • Notice that some forces need contact between two objects, but magnetic forces can act at a distance • Compare how things move on different surfaces • 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 • Notice that some forces need contact between two objects, but magnetic forces can act at a distance 	<ul style="list-style-type: none"> • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • Identify the effects of air resistance, water resistance and friction, that act between moving surfaces • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect 	
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Key performance indicators are in BOLD.