



**Milestone 1 & 2a**

**Science – Lower School (Cycle A)**

	Basic:	Expected:	Deep:
<b>Working scientifically (Y1 &amp; Y2)</b>			
Ask simple questions.			
Observe closely, using simple equipment.			
Perform simple tests.			
Identify and classify.			
Use observations and ideas to suggest answers to questions.			
Gather and record data to help in answering questions.			
<b>Working scientifically (Y3)</b>			
Ask relevant questions.			
Set up simple, practical enquiries, comparative and fair tests.			
Make systematic and careful observations.			
Take accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.			
Gather data in a variety of ways to help answer questions.			
Record data in a variety of ways to help answer questions.			
Classify data in a variety of ways to help answer questions.			
Present data in a variety of ways to help answer 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.			
Use results to make predictions for new values.			
Use results to suggest improvements.			
Use results to raise further questions.			
Identify differences, similarities or changes related to simple, scientific ideas and processes.			
Use straightforward, scientific evidence to answer questions or to support their findings.			
<b>Animals, including humans: The Human Body &amp; Senses</b>			
Identify, the basic parts of the human body.			
Name the basic parts of the human body.			
Draw and label the basic parts of the human body.			
Identify which part of the body is associated with each sense.			
<b>Forces and Magnets</b>			
Compare how different things move (pushing/pulling forces, where there is contact between two objects).			
Compare how things move on different surfaces (investigating the effects of friction 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.			



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Observe how magnets 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.			
Identify examples of everyday materials that are attracted to a magnet (magnetic materials).			
Describe magnets as having two poles.			
Predict whether two magnets will attract or repel each other, depending on which poles are facing.			
Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.			
Identify the effect of air resistance that acts between moving surfaces.			
Identify the effect of water resistance that acts between moving surfaces.			
Identify the effect of friction that acts between moving surfaces.			
Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.			
<b>Everyday Materials: Wood &amp; Rock</b>			
Distinguish between an object and the material from which it is made.			
Identify a variety of everyday materials, for example: brick, paper, cardboard, <b>including</b> wood and rock.			
Name a variety of everyday materials, for example: brick, paper, cardboard, <b>including</b> wood and rock.			
Describe the simple physical properties of a variety of everyday materials, for example: brick, paper, cardboard, <b>including</b> wood and rock.			
Compare a variety of everyday materials*, on the basis of their simple physical properties. *e.g. brick, paper, cardboard, <b>including</b> wood and rock.			
Group together a variety of everyday materials*, on the basis of their simple physical properties. *e.g. brick, paper, cardboard, <b>including</b> wood and rock.			
Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.			
Identify the suitability of a variety of everyday materials*, for particular uses. *e.g. brick, paper, cardboard, <b>including</b> wood and rock.			
Compare the suitability of a variety of everyday materials*, for particular uses. *e.g. brick, paper, cardboard, <b>including</b> wood and rock.			



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<b>Plants: Flowering plants</b>			
Identify a variety of common wild and garden plants.			
Name a variety of common wild and garden plants.			
Identify the basic structure of a variety of common flowering plants.			
Describe the basic structure of a variety of common flowering plants.			
Observe how seeds and bulbs grow into mature plants.			
Describe how seeds and bulbs grow into mature plants.			
Find out how plants need water, light and a suitable temperature to grow and stay healthy.			
Describe how plants need water, light and a suitable temperature to grow and stay healthy.			
Identify the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.			
Describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.			
Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow).			
Explore how the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) vary from plant to plant.			
Investigate the way in which water is transported within plants.			
<b>Animals, including humans: Fish and insects including Life Cycles</b>			
Identify a variety of common animals: fish and insects.			
Name a variety of common animals: fish and insects.			
Investigate and describe the basic needs of animals, for survival (water, food and air).			
Describe the ways in which nutrients and water are transported within animals.			
Identify a variety of common animals that are carnivores, herbivores and omnivores.			
Name a variety of common animals that are carnivores, herbivores and omnivores.			
Describe the structure of a variety of common animals: fish and insects, including pets.			
Compare the structure of a variety of common animals: fish and insects, including pets.			



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Identify the life cycles of fish and insects.			
Describe the differences between the life cycles of fish and insects.			
Describe the life process of reproduction in some fish and insects.			
Notice that animals have offspring which grow into adults.			
<b>Living things and their habitats: Ponds &amp; Rivers</b>			
Explore and compare the differences between things that are living, that are dead and that have never been alive.			
Identify that most living things live in habitats to which they are suited.			
Describe how different habitats provide for the basic needs of different kinds of animals and plants.			
Describe how animals and plants living in the same habitat depend on each other.			
Identify and name a variety of plants and animals in their habitats, including micro-habitats.			
Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.			