



Milestone 1 & 2a

Science – Lower School (Cycle B)

	Basic:	Expected:	Deep:
Working scientifically (Y1 & Y2)			
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.			
Working scientifically (Y3)			
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.			
Animals, including humans: Organs of the body			
Name the main organs of the body, including the eye, heart, lungs, stomach.			
Label the main organs of the body, including the eye, heart, lungs, stomach.			
Light			
Recognise that light is needed in order to see things and that dark is the absence of light.			
Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.			
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.			



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Recognise that shadows are formed when the light from a light source is blocked by an opaque object.			
Find patterns in the way that the size of shadows change.			
Everyday Materials: Glass & Metal			
Distinguish between an object and the material from which it is made.			
Identify and name a variety of everyday materials, for example: chalk, clay, foil, wood, rock, including glass and metal.			
Describe the simple physical properties of a variety of everyday materials, for example: chalk, clay, foil, wood, rock, including glass and metal.			
Compare a variety of everyday materials*, on the basis of their simple physical properties. *e.g. chalk, clay, foil wood, rock including glass and metal.			
Group together a variety of everyday materials*, on the basis of their simple physical properties. *e.g. chalk, clay, foil wood, rock including glass and metal.			
Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.			
Identify a variety of everyday materials*, for particular uses. *e.g. chalk, clay, foil, wood, rock including glass and metal.			
Compare the suitability of a variety of everyday materials*, for particular uses. *e.g. chalk, clay, foil, wood, rock including glass and metal.			
Plants: Trees			
Identify a variety of common wild and garden trees, including deciduous and evergreen trees.			
Name a variety of common wild and garden trees, including deciduous and evergreen trees.			
Identify the basic structure of a variety of trees including deciduous and evergreen trees.			
Describe the basic structure of a variety of trees including deciduous and evergreen trees.			
Animals, including humans: Birds and amphibians including Life Cycles			
Identify a variety of common animals: birds and amphibians.			
Name a variety of common animals: birds and amphibians.			
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.			



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Name a variety of common animals that are carnivores, herbivores and omnivores.			
Describe the structure of a variety of common animals: birds and amphibians, including pets.			
Compare the structure of a variety of common animals: birds and amphibians, including pets.			
Identify the life cycles of birds and amphibians.			
Describe the differences between the life cycles of birds and amphibians.			
Describe the life process of reproduction in some birds and amphibians.			
Notice that animals have offspring which grow into adults.			
Living things and their habitats: Coastal			
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.			