Whole School SCIENCE Overview – Cycle B				
Year Group/Class	**EYFS**	**Years 1 & 2**	**Years 3 & 4**	**Years 5 & 6**
Autumn 1	**As Cycle A**	**Seasonal changes** - observe changes across the four seasons - observe and describe weather associated with the seasons and how day length varies.	**States of Matter** - compare and group materials together, according to whether they are solids, liquids or gases - observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) - identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	**Properties and Changes of Materials** - 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 - know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution - use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating - give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic - demonstrate that dissolving, mixing and changes of state are reversible changes - 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.
Autumn 2	**As Cycle A**	**Living things and their habitats** - identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other - identify and name a variety of plants and animals in their habitats,	**Sound** - identify how sounds are made, associating some of them with something vibrating - recognise that vibrations from sounds travel through a medium to the ear - find patterns between the pitch of a sound and features of the object that produced it - find patterns between the volume of a sound and the strength of the vibrations that produced it.	**Scientists and inventors.** Find out about the work of naturalists and animal behaviourists (describe the life and work of David Attenborough). Identify scientific evidence that has been used to support or refute ideas or arguments (describe how evidence is used to solve crimes). Describe how scientific ideas have changed over time (describe Margaret Hamilton's life and work).

		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.	- recognise that sounds get fainter as the distance from the sound source increases	Describe Eva Crane and her work with bees. Describe Stephanie Kwolek and her work with materials. Identify evidence that supports or refutes scientific theories about Stonehenge. Carry out an inquiry to answer a question.
Spring 1	**As Cycle A**	**Living things and their habitats** - identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they 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.	**Animals including humans** - 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 - construct and interpret a variety of food chains, identifying producers, predators and prey.	**Animals, including humans** -Order the stages of human development. - Demonstrate understanding of how babies grow in height. - Describe the main changes that occur during puberty. - Explain the main changes that take place in old age. This topic needs to be covered by Year 5 children – alterations to Science topic timetable to be made to make this happen.
Spring 2	**As Cycle A**	**Famous scientists/ inventors** *-Choose a famous scientist or inventor to research* *Describe the properties of Lego.* Ask questions about Mae Jemison and find out the answers. Compare the bodies of different animals. Sort animals into different groups. Name different plants. Make a chart to show our favourite plants. Observe and describe the weather. Measure and record information about rain. Describe how vets look after animals. Identify parts of animals' bodies. Test which items keep us warm. Describe the properties of materials that keep us warm.	**Animals including humans** continued	**Living Things and their habitats** - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird - describe the life process of reproduction in some plants and animals.
Summer 1	**As Cycle A**	**Light and Dark** *(Extra unit)* -Make suggestions of how to investigate an idea -Make observations and comparisons -Explain observations.	**All Living Things** - recognise that living things can be grouped in a variety of ways - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment - recognise that environments can change and that this can sometimes pose dangers to living things.	**Earth and Space** - describe the movement of the Earth, and other planets, relative to the Sun in the solar system - describe the movement of the Moon relative to the Earth - 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.
Summer 2	**As Cycle A**		**Electricity** - identify common appliances that run on electricity - construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers - identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery - recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit - recognise some common conductors and insulators, and associate metals with being good conductors.	**Forces** - 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