

WHOLE SCHOOL OVERVIEW
SCIENCE



		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cycle A	EY	Seasonal Changes: Autumn	Light & Dark Nocturnal Animals	Seasonal Change: Winter / Hibernation	Animal Habitats	Growing Life Cycles	Space
	Y1/2	What Are Toys Made From?	My Body	Identifying Animals	Everyday Materials	Exploring Materials	Seasonal Change
	Y3/4	Light and Shadow	States of Matter	Circuits and Conductors	Living Environments	Habitats: Desert Life	Changing Sound
	Y5/6	Changes and Reproduction	Life Cycles	Changing Circuits	Evolution and Inheritance	Classifying Organisms	Investigating Science
Cycle B	EY	Seasonal Changes: Autumn	On the Farm	Freezing & Melting	Seasonal Change: Spring	Growing Life Cycles	Minibeasts
	Y1/2	Identifying Plants	Growth and Survival	Living in Habitats	Super Scientists	The Secret World of Plants	Growing Plants
	Y3/4	Forces and Magnets	Health and Movement	Eating Digestion	What Do Scientists Do?	Rocks, Fossils and Soils	How Plants Grow
	Y5/6	Properties and Changes Of Materials	Earth and Space	Forces in Action	Great British Scientist	Seeing Light	Healthy Bodies

		Cycle A					
		Autumn		Spring		Summer	
Early Years	Seasonal Changes: Autumn	Light & Dark Nocturnal Animals	Seasonal Change: Winter / Hibernation	Animal habitats	Growing: Life cycles	Space/ Superheroes	
	1. What are the signs that it is Autumn?	1. What animals are nocturnal? 2. How do we see in the dark? 3. What is a shadow	1. What are the signs that it is winter? 2. Why do animals hibernate?	1. How do we know it's Spring? 2. What animals can we find in a woodland? 3. Where do penguins live ?	1. How do frogs grow and change? 2. What does a seed need to help it grow?	1. What planet do we live on? 2. What are the names of some other planets? 3. What material would make a good cape for a superhero?	
Year 1/2	What Are Toys Made From?	My Body	Identifying Animals	Everyday Materials	Exploring Materials	Seasonal Change	
	1. What is it made from? 2. What are the properties of wood? 3. What are the properties of plastic? 4. What are the properties of metal? 5. What are the properties of fabric? 6. What have you learnt about materials?	1. What are the different parts of the body? 2. What does your body do? 3. What are the 5 senses? 4. What is touch? 5. What is smell? 6. What is taste 7. What is sound?	1. Can you name the animal? 2. What mammals live in the UK? 3. What birds and reptiles live in the UK? 4. What fish and amphibians live in the UK? 5. What is a carnivore, herbivore and omnivore? 6. How can we take care of animals? 7. How can we record information about animals?	1. What is the material and where does it come from? 2. What is the object? What is it made from? 3. Can you describe a material based on its properties? 4. Is it suitable? 5. Is it waterproof? 6. What have we learnt about materials?	1. How can you sort the materials? 2. Is it natural or man-made? 3. How can the material change shape? 4. What is metal and plastic good for? 5. Which products are made from wood? 6. Which products are made from different materials? 7. How can products be improved?	1. What happens during different seasons? 2. How are the seasons different? 3. How are animals affected by the seasons? 4. How are humans affected by the seasons? 5. How is day length affected by the seasons? 6. How can we investigate weather?	
Year 3/4	Light and Shadow	States of Matter	Circuits and Conductors	Living in Environments	Desert Life	Changing Sound	
	1. What are a variety of light sources? 2. How do you protect your skin or eyes from the sun? 3. What is the difference between transparent, translucent and opaque objects? 4. How is a shadow made? 5. Why do shadows created by the sun change position during the course of a day? 6. How does light travel? 7. What is a reflective surface?	1. What is a definition of a solid and a liquid? 2. What are the properties of gases? 3. What is the difference between the particles in solids, liquids and gases? 4. What are the freezing/melting points of different materials? 5. What is the process of evaporation? 6. What is the process of condensation? 7. What is the water cycle?	1. What do we use electricity for and why is it important? 2. What are some of the dangers of electricity? 3. What do you need to conduct a simple circuit? 4. What are common conductors and insulators? 5. Can you make a simple, functioning device which includes a circuit?	1. Why do organisms live in different habitats? 2. What are the similarities and differences between similar organisms? 3. What are vertebrates, invertebrates, mammals, amphibians, insects, reptiles, fish and birds? 4. Can you use a classification key to identify unfamiliar animals? 5. Can you use a classification key to identify unfamiliar plants? 6. How do changes in a habitat affect the organisms that live there?	1. What are the main features of a desert habitat? 2. What are the different ways you can sort animals? 3. What is a classification key? 4. How have animals adapted to survive in the desert? 5. How have plants adapted to survive in the desert? 6. What is a food chain?	1. How are different sounds are made? 2. Can you explain that vibrations from sounds travel through a medium to the ear? 3. What is the relationship between distance and volume? 4. How do some materials prevent vibrations form sound sources reaching the ear)? 5. What is pitch? 6. How does the length, thickness and tightness of a string affect the pitch? 7. How are sounds made by air vibrating?	
Year 5/6	Changes and Reproduction	Life Cycles	Changing Circuits	Evolution and Inheritance	Classifying Organisms	Viking Science	
	1. What are the main stages in the life cycle of humans? 2. What are the main stages of gestation in humans? 3. What are the needs of a newborn baby? 4. What are the initial changes that occur inside and outside the body at the start of puberty? 5. What are some of the ways in which boys' and girls' bodies start to differ during puberty? 6. How does the body change during old age?	1. What are the names and functions of the main parts of flowers? 2. What is asexual reproduction? 3. What are some of the ways in which sexual reproduction in animals occurs? 4. What are the links between the life cycle of animals and their environment? 5. What are some of the reasons for the differences between life cycles of different animals? 6. What do naturalists do?	1. What are the differences between static and current electricity? 2. What are the main components of a circuit? 3. Can you recognise and use conventional symbols for circuits? 4. How can you change the brightness of a bulb or the speed of a motor in a circuit? 5. Can you plan, carry out and evaluate an experiment? 6. Can you build a working circuit for a purpose?	1. Why does variation in offspring occur? 2. What are the characteristics which help an organism to be well suited to its environment? 3. Why do species evolve? 4. What do you know about the life and work of Charles Darwin? 5. What factors can affect evolution? 6. How have humans evolved over time?	1. What are the characteristics of different classifications of animals? 2. How can you distinguish between organisms that are similar? 3. What are the differences between vascular and non-vascular plants? 4. What do you know about the life and work of Carl Linnaeus? 5. What are micro organisms and how can they be classified? 6. Can you identify and classify organisms in the local area?	1. What do you know about the modern production of dairy foods? 2. Can you identify, describe and classify micro organisms? 3. Can you devise and conduct a test of the effectiveness of glue? 4. Can you ask scientific questions about the properties of a product? 5. Can you plan and conduct appropriate scientific enquiries to try and answer a question? 6. Can you interpret and present your findings?	

		Cycle B					
		Autumn	Spring		Summer		
Early Years	Seasonal Change: Autumn	On the Farm	Freezing & Melting	Seasonal Change: Spring	Growing Life cycles	Minibeasts	
	1. How do we know it is Autumn?	1. What animals live on a farm? 2. What grows on a farm?	1. What happens to water when we put it in the freezer? 2. How do we melt ice?	1. How do we know that it's Spring?	1. How do butterflies grow and change? 2. What do bulbs need to grow	1. What is a minibeast? 2. Where might you find a minibeast in your garden?	
Year 1/2	Identifying Plants	Growth and Survival	Living in Habitats	Super Scientists	The Secret World of Plants	Growing Plants	
	1. What is a plant? 2. What are garden plants? 3. What are wild plants? 4. What are the different types of trees? 5. What are the different parts of a plant? 6. How do plants change as they grow?	1. What is offspring? 2. How do animals reproduce? 3. How do humans change as they get older? 4. What do animals, including humans need to survive? 5. How do animals depend on their environment? 6. How do we keep our bodies healthy? 7. Why is exercise important?	1. What things are living, dead or have never been alive? 2. What is a habitat? 3. Who lives at the seaside? 4. Are all habitats the same? 5. What is a micro habitat? 6. How do animals and plants depend on each other?	1. What effect does gravity have? 2. What happens to light when it passes through transparent objects? 3. How can you investigate wind? 4. Can sound pass through materials? 5. Do senses and reflexes work together? 6. How are germs transferred? 7. Can you make a light bulb work?	1. What do plants need to grow? 2. What do plants need to stay healthy? 3. How can we help dying plants? 4. What happens underground? 5. How do plants reproduce?	1. How do seeds grow? 2. What can plants be grown from? 3. How are seeds dispersed? 4. What affects germination? 5. What are the stages of plant development?	
Year 3/4	Forces and Magnets	Health and Movement	Eating Digestion	What Do Scientists Do?	Rocks, Fossils and Soils	How Plants Grow	
	1. What is a force? 2. Can you compare how things move on different surfaces? 3. How do magnetic forces work? 4. Can you identify magnetic materials? 5. Can you investigate uses for magnets?	1. How do humans get the nutrition they need? 2. Why do humans need a balanced diet? 3. Which foods do different animals eat? 4. Can you investigate what pets eat? 5. What are vertebrates? 6. How does the skeleton support and protect the body? 7. What are muscles and how do they help us move?	1. What are carnivores, herbivores and omnivores? 2. What do the terms 'producer' and 'consumer' mean in relation to food chains? 3. What different types of teeth do humans have and what are their functions? 4. How can you make sure your teeth are healthy? 5. Can you name some of the organs associated with the digestive system? 6. How does the digestive system work?	1. What qualities might a scientist need? 2. Can you generate enquiry questions and make careful observations? 3. Can you plan a comparative fair test? 4. Can you draw conclusions from careful observations? 5. Can you plan an investigation to answer an enquiry question? 6. Can you conduct a practical experiment, record your findings in a table and draw conclusions from data?	1. Can you identify naturally occurring rocks and explore their uses? 2. Can you group rocks according to their characteristics? 3. Can you plan, carry out and evaluate experiments to explore rocks? 4. Can you identify rocks that are used for particular purposes? 5. Can you explain how soil is formed? 6. What is a fossil? 7. Can you describe how a fossil is formed?	1. Can you name the main parts of flowering plants and describe their functions? 2. How is water transported within plants? 3. What is the function of leaves in flowering plants? 4. Can you describe one of the ways in which flowering plants reproduce? 5. Why do flowering plants need to disperse seeds? 6. Can you identify parts of a seed?	
Year 5/6	Properties and Changes of Materials	Earth and Space	Forces in Action	Great British Scientist	Seeing Light	Healthy Bodies	
	1. Which materials will dissolve in liquids to form a solution? 2. What do the terms soluble and insoluble mean? 3. What happens when an irreversible change takes place? 4. Which changes caused by heating or cooling are reversible or irreversible? 5. What happens when a candle burns? 6. Can you compare and group everyday materials according to their properties? 7. Why are some everyday materials useful due to their properties?	1. Can you describe the movements of the sun, earth and moon? 2. How does the rotation of earth on its axis create day and night? 3. How does the earth's tilted axis explain how seasons are created? 4. What are the different phases of the moon called? 5. What is the solar system? 6. Can you name the eight planets in order from nearest to farthest from the sun?	1. Can you explain why objects fall towards the centre of the earth? 2. What are the effects of friction acting between moving surfaces? 3. What is air resistance and how does it affect objects? 4. What is water resistance and how does it affect objects? 5. How do levers and pulleys allow a smaller force to have a greater effect? 6. How do gears allow a smaller force to have a greater effect?	1. What are Sir Isaac Newton's three laws of motion? 2. What is white light? 3. What are the effects of gravity? 4. How did the works of Anning, Darwin and/or Wallace contribute to Science? 5. Can you identify control variables in an investigation? 6. How does using smaller or larger gears to power another gear alter the movement?	1. How is a shadow created? 2. How can we change shadows? 3. What do the main parts of the eye do to help us see? 4. Can you draw a diagram to show how light allows us to see an object? 5. What does 'reflect' mean? 6. What happens when light is refracted? 7. Can you name the seven colours that white light can be split into?	1. What is a balanced diet? 2. Why are different groups important for a healthy lifestyle? 3. How are nutrients and water transported in the human body? 4. What happens to the body when we exercise? 5. How do muscles move the body? 6. What are the effects of tobacco, alcohol and other drugs on the body? 7. What can we do to keep our bodies healthy?	