SCIENCE LONG TERM OVERVIEW

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2

YEAR 1	Animals including Humans – the human body	*Seasonal change - Autumn* Properties of Everyday materials	Properties of every day materials *Seasonal Change - Winter*	Animals including Humans – Animals *Seasonal Change – Spring*	Plants	Plants *Seasonal changes – Summer / weather / daylight.*
Investigations	1. Do older children have bigger feet? 2. Which part of the body do we use to see? 3. Do all things taste the same? 4. What can you hear? 5. How does it feel? 6. What's that smell?	*1. How do plants and animals change in autumn?* *2. What other changes do I see in autumn?* 1. What materials do I see around me? 2. How do I distinguish between objects and materials 3. Which objects are natural and which are man-made?	4. What are the properties of everyday objects? 5. Will it float or sink? 6. Which material is best for the job? *1. What happens to plants and animals in the Winter?* 2. *What other changes do I see in Winter?*	1. What are the 5 groups of animals? 2. How do mammals and birds compare? 3. What are the differences between cold blooded animals? 4. Do all animals eat the same things? 5. What are the differences between wild animals and pets? *1. How do animals and plants change in the Spring?*	1. What is a plant? 2. What are the parts of a plant? 3. How do plants change over time? 4. What will it be? (seed and bulb comparison) 5. What is the difference between wild and garden plants?	6. Do all trees look the same? 7. Do all trees lose their leaves? 8. Which trees grow in our local area? 9. Which parts of the plant can you eat? *1. What changes do you see in animals and plants in Summer?* *2. How does seasonal change affect the weather?* *3. What happens to the hours of daylight during each season?*

				2. *What other changes do I see in spring?*		
Working Scientifically	Comparative tests	*Pattern seeking* Identifying, grouping and classifying	Comparative / fair test *Pattern seeking*	Research	Identifying, grouping and classifying	Observation over time

YEAR 2	Animals including Humans – Lifecycles	Animals including Humans – Survival	Uses of Everyday Materials	Plants	Living things and their habitats - Habitats	Living things and their habitats - Microhabitats
Investigations	1. Are all offspring the same as their parents? 2. How do animals change as they grow? 3. What is a lifecycle? 4. What is the lifecycle of a human? 5. What is the lifecycle of a butterfly? 6. What is the lifecycle of a frog? What is the same and what is different about animal lifecycles?	1. What are the basic needs of animals for survival? 2. Why is it important for humans to exercise? 3. What are the effects of exercise? 4. What is a balanced diet? 5. Why is it important to eat the right amounts and types of food? 6. What is hygiene? 7. Why is hygiene important?	1. What are the different types of every day materials? 2. How can we group and classify the uses of different everyday materials 3. In what ways can we compare the suitability of every day materials? 4. How can materials change shape? 5. What is recycling? 6. Why is it important to recycle?	1. What do seeds need to grow? 2. What's inside a seed? 3. What do seeds need to germinate? 4. How does light effect plant growth? 5. What are the stages in the plant lifecycle? 6. What do plants need for healthy growth?	7. What are the characteristics of living things? 8. What are the differences between things that are living, dead and things that have never been alive? 9. What is a habitat? 10. How does a habitat provide animals and plants with what they need to survive? 11. How do animals and plants depend on each other? 12. What is a food chain?	1. What is a microhabitat? 2. What organisms might you find in a microhabitat? 3. How can you classify different minibeasts?
Working Scientifically	Observation over time	Research	Identifying, grouping and classifying	Comparative / fair test	Pattern seeking	Identifying, grouping and classifying

YEAR 3	Animals including Humans	Animals including Humans	Rocks and soils	Forces and Magnets	Plants	Light
Investigations	1. What is a skeleton? 2. What is the purpose of the skeleton? 3. What are muscles? 4. What is the purpose of muscles? 5. Do all animals have the same skeleton?	6. What nutrients does our body need? 7. What are the main food groups? 8. How do foods keep us healthy? 9. Do animals require the same foods as humans? 10. How do we group animals by what they eat?	1. Is the Earth a solid rock? 2. What are rocks? 3. What is an igneous rock? 4. What is a metamorphic rock? 5. What is a sedimentary rock? 6. How can rocks be sorted?	1. What is a force? 2. How do objects move on different surfaces? 3. How do magnetic forces work? 4. Which materials are magnetic? 5. What happens to a magnet in the presence of another magnet? 6. Are all magnets the same strength?	1. What is the structure of a plant? 2. What are the functions of each part of the plant? 3. What do plants need to grow? 4. How is water transported around a plant? 5. How do plants reproduce? 6. How are seeds dispersed?	1. What is light? 1. What is reflected light? 2. Is the sun dangerous? 3. What is a shadow 4. Does moving the light source have an effect on the shadow? How do mirrors work?
Working Scientifically	Research	Research	Identifying, grouping and classifying	Pattern seeking	Observing over time	Comparative / Fair test

YEAR 4	States of Matter	Electricity	Living things and their habitats	Animals including Humans	Sound
Investigations	1. What is a solid? 2. What is a liquid? 3. What is a gas? 4. What is melting? 5. What is freezing? 6. What is condensation? 7. What is evaporation? 8. What are the different stages of the water cycle? 9. How does temperature effect evaporation rates and the water cycle?	10. What common appliances use electricity? 11. What type of power do appliances use? 12. What are the components of a simple circuit? 13. What are conductors and insulators and how do these	1. What do all living things need? 2. How can living things be grouped in different ways? 3. What are vertebrates and invertebrates and how do they differ?	1. What is the digestive system? 2. Why are teeth different shapes? 3. Which drink causes the most tooth decay? 4. What is a food chain?	1. How are sounds made? 2. What are the parts of the ear? 3. How do we hear? 4. How does sound travel? 5. What is pitch and volume and what is the relationship between them?

		work within a circuit? 14. How does a switch work? 15. What is the impact of a switch on a circuit? 16. How can I construct a simple series circuit?	4. What types of minibeasts live in my local area? 5. What are classification keys? 6. How are classification keys used to group living things?		6. How does distance affect volume? 7. How can we protect our ears from noise?
Working Scientifically	Comparative / Fair test	Pattern seeking	Identifying, grouping and classifying	Observation over time	Pattern seeking

YEAR 5	Forces	Earth and Space	Properties and Changes of Materials	Living things and their Habitats	Animals including Humans
Investigations	1. What is gravity? 2. What is friction? 3. Whose shoe has the greatest friction? What is air resistance? 5. What is water resistance? 6. What are gears, levers and pulleys?	1. What is a solar system? 2. What are the names of the planets in our solar system? 3. How do the planets orbit the sun? 4. How does the moon orbit the Earth? 5. How do we know that the Earth, sun and moon are spherical bodies? 6. Why do we have day and night?	1. What are the different properties of materials? 2. How can materials be grouped according to their properties? 3. Which materials make the best thermal insulators? 4. Which materials are soluble and insoluble? 5. What is the difference between melting and dissolving? 6. How can mixed materials be separated? 7. What is a reversable change? 8. What is an irreversible change?	1. What are the 7 life processes? 2. How do mammals reproduce? 3. Do different animals reproduce in the same way? 4. How do plants reproduce? 5. What is a life cycle? 6. What are the stages in the lifecycle of a plant?	1. How do humans change throughout their life? 2. How do babies develop in the womb? 3. How does the human body develop throughout puberty? 4. How does the human body change during old age? 5. How do gestation periods vary between species? 6. How do life

					expectancies vary between different species?
Working Scientifically	Comparative / fair test	Research	Identifying, grouping and classifying	Observation over time	Pattern seeking

YEAR 6	**Living things and their habitats**	**Light**	**Animals including humans**	**Animals including humans –** *to be taught alongside PSHE unit*	**Electricity**	**Evolution and inheritance**
Investigations	1. What is classification? 2. Who was Carl Linnaeus? 3. How can we group different plants and animals based on their shared characteristics? 4. Which microorganisms are helpful and which are harmful?	1. Does light travel in straight lines? 2. How do we see objects? 3. What is the angle of reflection and incidence? 4. What influences the shape of a shadow?	1. What is the circulatory system? 2. How does our heart work? 3. What are the functions of the heart, blood vessels and blood? 4. What does blood transport around the body? 5. How does exercise affect my heart rate?	1. How can I stay healthy? 2. What can damage my health?	1. How do I draw a scientific diagram of a circuit? 2. How does voltage in a circuit affect brightness in a bulb? 3. How do I plan a fair test experiment to investigate variations in how components function? 4. How do I write a conclusion for my investigation? 5. What is renewable and non-renewable energy?	1. How are plants adapted to their environment? 2. How are animals adapted to their environment? 3. What is natural selection and how does it lead to evolution? 4. What characteristics can you inherit from your parents? 5. How can fossils help us explain evolution?
Working Scientifically	Identifying, grouping and classifying	Comparative / fair tests	Observation over time	Research	Comparative / fair tests	Pattern seeking