



**SCIENCE COMPOSITE KNOWLEDGE**

Term	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
EYFS	<b><u>Animals including humans</u></b> Can you name some common animals? Do you know whether an animal is a bird, fish, mammal, reptile? Can you observe, describe and draw animals? Do you know where some animals live? Can you talk about lifecycles of some animals? (frogs, chicks, butterflies) Can you identify some body parts of some common animals? Can you identify some main human body parts? Can you link human body parts to senses?					
	<b><u>Plants</u></b> Can you find and name some of the plants in our outdoor area? Can you observe, describe and draw plants and flowers? Can you name some main parts of plants?					
	<b><u>Everyday materials</u></b> Can you talk about different everyday materials and their properties? (paper, card, wood etc.)					
	<b><u>Seasonal change</u></b> Can you name the four seasons? Can you talk about different types of weather? Can you associate weather with seasons?					
YEAR 1	<b><u>Animals including humans</u></b> Can you name a variety of common animals?  How can you group these animals?  What is a carnivore, herbivore and omnivore?  What are the different parts of the human body and can you name the senses that are associated with these?		<b><u>Everyday Materials</u></b> Can you name some everyday materials?  Can you match an object to the material it is made from?  How can you group objects based on their properties?  Which materials are hard, soft, shiny and bendy? Why are certain materials used for specific purposes?		<b><u>Plants</u></b> What are plants and can you name the different parts of a plant?  What types of plants can you see in the UK?  What are trees and can you name the different parts of a tree?  What types of trees can you see in the UK?	
	<b><u>Seasonal Changes and SRE</u></b> What are seasons?  Can you name the four seasons we have in the UK?  What types of weather will you see in different seasons?  How does the length of the day change in different seasons?					

<p><b>YEAR 2</b></p>	<p><b><u>Living things and their habitats</u></b>          What are the differences between living things, things that are dead and things that have never been alive?</p> <p>Explain how you know if something is living.</p> <p>Explain what the term 'habitat' means.</p> <p>How and where do animals find their food?</p>		<p><b><u>Use of everyday materials</u></b>          Which materials are most suitable for different purposes and why?</p> <p>How can the shapes of solid objects made from some materials be changed?</p>	<p><b><u>Plants</u></b>          Explain what 'germination' means.</p> <p>How do seeds and bulbs grow into plants?</p> <p>What do plants need to grow and stay healthy?</p>	<p><b><u>Animals including humans &amp; SRE</u></b>          What do animals including humans need in order to survive and stay healthy?</p> <p>What happens to baby animals and humans as time passes?</p> <p>Are all offspring born in the same way? How does it differ?</p> <p>Why is exercise, eating the right amounts of different types of food and hygiene important?</p>
<p><b>YEAR 3</b></p>	<p><b><u>Forces and magnets</u></b>          What is a force? Give an example of one.</p> <p>Which surface would be easier to cycle on, explain your reasoning.</p> <p>How do forces affect our lives?</p> <p>How do you know if two magnets will retract or repel?</p> <p>Which materials are magnetic?</p> <p>How are magnets used in everyday life?</p>	<p><b><u>Light</u></b>          What is darkness?</p> <p>What happens when light hits a surface?</p> <p>Why is it dangerous to look directly at the sun?</p> <p>How are shadows formed?</p> <p>What happens to the shadow of a stationary object when the light source moves?</p>	<p><b><u>Rocks</u></b>          What are the different types of rocks? Give an example of each one.</p> <p>What is a fossil?</p> <p>How are fossils formed?</p> <p>What is soil made from?</p> <p>Are all soils in all areas the same? Explain your reasoning.</p>	<p><b><u>Animals including Humans</u></b>          Explain the terms 'vertebrate' and 'invertebrate'</p> <p>Where do animals and humans get nutrition from?</p> <p>What are the different food groups and how do they keep us healthy?</p> <p>What is the function of the skeleton and muscles?</p>	<p><b><u>Plants</u></b>          Can you label the parts of the flowering plant?</p> <p>What is the function of the roots/stem/leaves/flowers of a plant?</p> <p>How is water transported within plants?</p> <p>What do plants need for growth and survival?</p> <p>Explain or draw pictures to show the life cycle of a flowering plant.</p>

<p><b>YEAR 4</b></p>	<p><b><u>States of Matter</u></b>          What is a solid, liquid, gas?           What processes occur when materials change state?           At what temperature does water change from:              a. A Liquid to a gas              b. A liquid to a solid           Some materials can change state when heated or cooled. Explain how this happens with water.           What is evaporation and condensation?          What is the Water Cycle and how does it work?</p>	<p><b><u>Electricity</u></b>          Can you name the components that make a circuit?           Name items that run on electricity.           How do we construct a simple circuit?           How does a circuit work and what is the function of a switch?           What materials make good conductors?</p>	<p><b><u>Sound</u></b>          How are sounds made?           How does sound travel to the ear?           As you move further away from a source of sound, what happens to the sound you hear?           Can you label the parts of the ear?</p>	<p><b><u>Animals including Humans</u></b>          Can you label the parts of the digestive system?           Explain the function of the digestive system.           Can you label human teeth?           What are the functions of human teeth?           Which plants and animals are the producer, predator and prey in this food chain?</p>	<p><b><u>Living things in their habitats &amp; SRE</u></b>          Environments, such as oceans, Polar Regions and forests, can change. Explain how a region can change and the danger it can pose to living things.           What are the different groups of living things in my environment?           What impact do humans play on the environment?           How can changes in the environment impact living things?</p>
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<p><b>YEAR 5</b></p>	<p><b>Forces</b>          What effect do levers, pulleys and gears have on a force?           Why do unsupported objects fall towards the Earth?           What are the effects of air resistance/water resistance and friction?</p>	<p><b>Properties and changes in Materials</b>          What is solubility and conductivity?           What are reversible changes?           How can mixtures (of different states) be separated?</p>	<p><b>Properties and changes in Materials</b>          What are irreversible changes?           How are new materials formed?           Can you explain why some everyday materials are made from wood/plastic/metal?</p>	<p><b>Earth and Space</b>          What does the sun, Earth and moon look like?           How does the Earth and other planets move?           Why do we have night and day?           Why does it look like the sun moves across the sky?</p>	<p><b>Living things and their habitats &amp; SRE</b>          What are the differences in the life cycles of a mammal, an amphibian, an insect and a bird?           What are the differences in sexual and asexual reproduction in plants?</p>	<p><b>Animals including Humans</b>          What are the changes a human makes when they develop into old age?           How can you show human growth and development on a timeline?           What is a gestation period?           What differences are there between a human's gestation period and other animals?           What changes take place during puberty? (SRE)</p>
<p><b>YEAR 6</b></p>	<p><b>Animals including humans</b>          What are the main parts of the human circulatory system?           Explain the function of the heart within the circulatory system.           What is the impact of diet, exercise, drugs and lifestyle on the way human bodies function?           How are nutrients and water transported within animals, including humans?</p>	<p><b>Living things and their habitats</b>          What name is given to scientists who sort and classify living things into groups?           How are living things classified according to common observable characteristics?           How are living things, such as animals or plants, adapted to survive in different habitats?</p>	<p><b>Light</b>          Can you name the parts of the human eye?           How does light travel?           How do we see things?           How are shadows formed?           Explain why the moon is not a light source.</p>	<p><b>Electricity</b>          What are the main components of a circuit?           What are the correct symbols to represent the components of a circuit?           What is the effect of changing components in an electrical circuit?           How do components function?           What happens to the brightness of a bulb/loudness of buzzers when you increase the number of cells in a circuit?</p>	<p><b>Evolution Inheritance &amp; SRE</b>          What is the difference between selective breeding and evolution?           How do we know about living things that inhabited the Earth millions of years ago?           What is the process of evolution by natural selection?           What features are inherited?           Explain how an animal has adapted to suit the environment it lives in.          Explain how a plant has adapted to suit the environment it lives in.</p>	