



# Science

## St Edmund Campion

### Autumn 1

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p>Understanding the world:</p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Exploring animals</li> </ul>	<p><b>Animals, including Humans</b></p> <p>Know the name of parts of the human body that can be seen (including the 5 senses)</p>		<p><b>Light</b></p> <p>Know that dark is the absence of light</p> <p>Know that light is needed in order to see and is reflected from a surface</p> <p>Know and demonstrate how a shadow is formed and explain how a shadow changes shape</p> <p>Know about the danger of direct sunlight and describe how to keep protected</p>	<p><b>All living things and their habitats</b></p> <p>Use classification keys to group, identify and name living things</p> <p>Know how changes to an environment could endanger living things</p>	<p><b>Properties &amp; changes in materials</b></p> <p>Compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical &amp; thermal], and response to magnets</p> <p>Know and explain how a material dissolves to form a solution</p> <p>Know how to recover a substance from a solution</p>	<p><b>All living things &amp; their habitats</b></p> <p>Classify living things into broad groups according to observable characteristics and based on similarities and differences</p> <p>Know how living things have been classified</p> <p>Give reasons for classifying plants and animals in a specific way</p>

### Autumn 2

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p>Understanding the world:</p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Recognise autumn</li> <li>- Understand the 5 senses</li> <li>- Explore water, floating and sinking</li> <li>- Talk about light and dark</li> <li>- Identify animals and sort them according to where they live</li> <li>- Recognise how animals behave as the seasons change.</li> </ul>	<p><b>Everyday Materials</b></p> <p>Know the name of the materials an object is made from</p> <p>Know about the properties of everyday materials</p>	<p><b>Everyday Materials</b></p> <p>Know how materials can be changed by squashing, bending, twisting and stretching</p> <p>Know why a material might or might not be used for a specific job (*Traction Man: Waterproof materials. Testing materials)</p>	<p><b>Rocks</b></p> <p>Compare and group rocks based on their appearance and physical properties, giving reasons</p> <p>Know how soil is made and how fossils are formed</p> <p>Know about and explain the difference between sedimentary, metamorphic and igneous rock</p>	<p><b>Sound</b></p> <p>Know how sound is made, Know how sound travels from a source to our ears</p> <p>Know the correlation between pitch and the object producing a sound</p> <p>Know the correlation between the volume of a sound and the strength of the vibrations that produced it</p> <p>Know what happens to a sound as it travels away from its source</p>	<p><b>Properties &amp; changes in materials</b></p> <p>Know and demonstrate how some materials can be separated (e.g. through filtering, sieving and evaporating)</p> <p>Know and demonstrate that some changes are reversible and some are not</p> <p>Know how some changes result in the formation of a new material and that this is usually irreversible.</p>	

## Spring 1

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p><u>Understanding the world:</u></p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Recognise spring</li> <li>- Explore the force of magnetism</li> <li>- Name different materials and suggest some properties</li> <li>- Recognise changes in materials</li> </ul>	<p><b><u>Seasonal Change</u></b> Name the seasons and know about the type of weather in each season (Facts about the seasons and using instruments to measure the weather)</p>	<p><b><u>Animals, including Humans</u></b> Know the basic stages in a life cycle for animals, (including humans) Know why exercise, a balanced diet and good hygiene are important for humans</p>	<p><b><u>Forces (and magnets)</u></b> Know about and describe how objects move on different surfaces Know how a simple pulley works and use to on to lift an object Know how some forces require contact and some do not, giving examples Know about and explain how magnets attract and repel Predict whether magnets will attract or repel and give a reason</p>	<p><b><u>Electricity</u></b> Identify and name appliances that require electricity to function Construct a series circuit Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers) Predict and test whether a lamp will light within a circuit Know the function of a switch Know the difference between a conductor and an insulator; giving examples of each</p>	<p><b><u>Earth and Space</u></b> Know about and explain the movement of the Earth and other planets relative to the Sun Know about and explain the movement of the Moon relative to the Earth Know and demonstrate how night and day are created Describe the Sun, Earth and Moon (using the term spherical)</p>	<p><b><u>Light</u></b> Know how light travels Know and demonstrate how we see objects Know why shadows have the same shape as the object that casts them Know how simple optical instruments work e.g. periscope, telescope, binoculars, mirror, magnifying glass etc.</p>

## Spring 2

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p><u>Understanding the world:</u></p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Talk about the life cycle of animals.</li> <li>- Talk about the life cycle of plants.</li> <li>- Understand what seeds need to grow and how to care for them.</li> </ul>	<p><b><u>Animals, including Humans</u></b> Know how to classify a range of animals by amphibian, reptile, mammal, fish and birds Know and classify animals by what they eat (carnivore, herbivore and omnivore) Know how to sort by living and non-living things</p>	<p><b><u>All living things and their habitats</u></b> Match living things to their habitat</p>			<p><b><u>Forces</u></b> Know what gravity is and its impact on our lives Identify and know the effect of air and water resistance Identify and know the effect of friction Explain how levers, pulleys and gears allow a smaller force to have a greater effect</p>	<p><b><u>Evolution &amp; Inheritance</u></b> Know how the Earth and living things have changed over time Know how fossils can be used to find out about the past Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents) Know how animals and plants are adapted to suit their environment Link adaptation over time to evolution</p>

Know about evolution and can explain what it is

## Summer 1

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p><u>Understanding the world:</u></p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Recognise summer</li> <li>- Recognise familiar plants.</li> </ul>	<p><b>Plants</b></p> <p>Know and name a variety of common wild and garden plants</p> <p>Know and name the petals, stem, leaves and root of a plant</p> <p>Know and name the roots, trunk, branches and leaves of a tree</p>	<p><b>Plants</b></p> <p>Know and explain how seeds and bulbs grow into plants</p> <p>Know what plants need in order to grow and stay healthy (water, light &amp; suitable temperature)</p>	<p><b>Plants</b></p> <p>Know the function of different parts of flowering plants and trees</p> <p>Know how water is transported within plants</p> <p>Know the plant life cycle, especially the importance of flowers.</p>	<p><b>States of Matter</b></p> <p>Know the temperature at which materials change state</p> <p>Know about and explore how some materials can change state</p> <p>Know the part played by evaporation and condensation in the water cycle</p> <p>Group materials based on their state of matter (solid, liquid, gas)</p>	<p><b>All living things and their habitats</b></p> <p>Know the life cycle of different living things e.g. mammal, amphibian, insect and bird</p> <p>Know the differences between different life cycles</p> <p>Know the process of reproduction in plants</p> <p>Know the process of reproduction in animals</p>	<p><b>Animals, including humans</b></p> <p>Know the impact of diet, exercise, drugs and lifestyle on health</p> <p>Know the ways in which nutrients and water are transported in animals, including humans</p> <p><b>Animals, Including humans</b></p> <p>Identify and name the main parts of the human circulatory system</p> <p>Know the function of the heart, blood vessels and blood</p>

## Summer 2

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p><u>Understanding the world:</u></p> <ul style="list-style-type: none"> <li>- Working scientifically</li> <li>- Recognise summer</li> <li>- Recognise familiar plants.</li> </ul>		<p><b>All living things and their habitats</b></p> <p>Classify things by living, dead or never lived</p> <p>Know how a specific habitat provides for the basic needs of things living there (plants and animals)</p> <p>Name some different sources of food for animals</p> <p>Know about and explain a simple food chain</p>	<p><b>Animals, including humans</b></p> <p>Know about the importance of a nutritious, balanced diet (*Health Week)</p> <p>Know how nutrients, water and oxygen are transported within animals and humans</p> <p>Know about the skeletal and muscular system of a human</p>	<p><b>Animals, including humans</b></p> <p>Identify and name the parts of the human digestive system</p> <p>Know the functions of the organs in the human digestive system</p> <p>Identify and know the different types of human teeth</p> <p>Know the functions of different human teeth</p> <p>Use and construct food chains to identify</p>	<p><b>Animals, including humans</b></p> <p>Create a timeline to indicate stages of growth in humans</p>	<p><b>Electricity</b></p> <p>Compare and give reasons for why components work and do not work in a circuit</p> <p>Draw circuit diagrams using correct symbols</p> <p>Know how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer</p>

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