



Subject: Science

Term	Christmas		Lent		Whitsun	
	1 <sup>st</sup> half term	2 <sup>nd</sup> half term	1 <sup>st</sup> half term	2 <sup>nd</sup> half term	1 <sup>st</sup> half term	2 <sup>nd</sup> half term
PP1	<u>Ourselves</u> <ul style="list-style-type: none"> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> </ul>	<u>Animals and Humans</u> <ul style="list-style-type: none"> <li>Identify and name a variety of common animals including fish, amphibians, Reptiles, birds and mammals. Briefly look at habitats.</li> </ul>	<u>Everyday Materials</u> <ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal.</li> <li>Describe, compare and group materials based on their simple physical properties.</li> </ul>	<u>Weather</u> <ul style="list-style-type: none"> <li>Creating a weather station.</li> <li>Associate the weather with the correct season.</li> </ul>	<u>Growing</u> <ul style="list-style-type: none"> <li>What is inside a flower? What is inside a tree?</li> <li>Label the parts of a flower.</li> <li>Grow a variety of seeds and observe the changes over time.</li> </ul>	<u>Lifecycles</u> <ul style="list-style-type: none"> <li>Look at the lifecycles of a chick, frog and caterpillar. How are they different / similar. Compare them to the life cycle of humans.</li> </ul>
PP2	<u>Animals including humans</u> <ul style="list-style-type: none"> <li>How young grow from babies into adults.</li> <li>Describe the basic needs for survival.</li> <li>Look at various life cycles including chicken.</li> <li>(Taking care of ourselves) Study basic hygiene and exercise which keeps humans healthy.</li> <li>5 Main food groups</li> </ul>	<u>Everyday materials</u> <ul style="list-style-type: none"> <li>Compare and identify suitability and uses of some materials.</li> <li>Scientist study of inventors of materials, recycling.</li> <li>Up cycle a plastic bottle, wrapping</li> </ul>	<u>Plants (light and dark)</u> <ul style="list-style-type: none"> <li>Explore plants, parts of a plant.</li> <li>Plan and investigate light and dark.</li> <li>What plants need to stay healthy?</li> </ul>	<u>Habitats</u> <ul style="list-style-type: none"> <li>Differences between things that are living, dead and never been alive and know what is needed to stay alive.</li> <li>Plants and animal habitats including microhabitats.</li> <li>Food chains.</li> </ul>	<u>Plants (blubs and seeds)</u> <ul style="list-style-type: none"> <li>What do plants need to grow?</li> </ul> <u>Growing up</u> <ul style="list-style-type: none"> <li>Parent and offspring</li> <li>Lifecycle of humans, mammals, amphibians and butterflies</li> </ul> <u>Wildlife</u> <ul style="list-style-type: none"> <li>What does wildlife do for us?</li> <li>What can we do for Wildlife?</li> </ul>	<u>Plants (blubs and seeds)</u> <ul style="list-style-type: none"> <li>What do plants need to grow?</li> </ul> <u>Growing up</u> <ul style="list-style-type: none"> <li>Parent and offspring</li> <li>Lifecycle of humans, mammals, amphibians and butterflies</li> </ul> <u>Wildlife</u> <ul style="list-style-type: none"> <li>What does wildlife do for us?</li> <li>What can we do for Wildlife?</li> </ul>



<p>Prep</p>	<p><u>Nutrition and healthy eating</u></p> <ul style="list-style-type: none"> <li>• Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat; identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> </ul>	<p><u>Rocks and Soils</u></p> <ul style="list-style-type: none"> <li>• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties;</li> <li>• Describe in simple terms how fossils are formed when things that have lived are trapped within rock;</li> <li>• Recognise that soils are made from rocks and organic matter.</li> </ul>	<p><u>Forces and Magnets</u></p> <ul style="list-style-type: none"> <li>• Compare how things move on different surfaces;</li> <li>• Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance;</li> <li>• Observe how magnets attract or repel each other and attract some materials and not others;</li> <li>• Compare and group together a variety of everyday materials on the basis of whether they are attracted to</li> </ul>	<p><u>Plants</u></p> <ul style="list-style-type: none"> <li>• Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers;</li> <li>• Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant;</li> <li>• Investigate the way in which water is transported within plants;</li> <li>• explore the part that flowers play in the life cycle of</li> </ul>	<p><u>Sound and vibrations</u></p> <ul style="list-style-type: none"> <li>• Identify how sounds are made, associating some of them with something vibrating;</li> <li>• Recognise that vibrations from sounds travel through a medium to the ear;</li> <li>• Find patterns between the pitch of a sound and features of the object that produced it;</li> <li>• Find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> </ul>	<p><u>Light and shadows</u></p> <ul style="list-style-type: none"> <li>• Recognise that they need light in order to see things and that dark is the absence of light;</li> <li>• Notice that light is reflected from surfaces;</li> <li>• Recognise that light from the sun can be dangerous and that there are ways to protect their eyes;</li> <li>• Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</li> </ul>
<p>Els</p>	<p><b>Living Things:</b></p> <ul style="list-style-type: none"> <li>• Characteristics of living things, categorising different species, biology of animals (including humans) to include skeletons, muscles and internal systems (primarily digestive).</li> <li>• More complex food chains/webs leading to study of owls (pellet dissection).</li> <li>• Animal jaws and bite force.</li> <li>• Using more complex terminology throughout, e.g. medical names for bones and animal ‘consumer’ types.</li> </ul>	<p><b>States of Matter:</b></p> <ul style="list-style-type: none"> <li>• Definitions (solids, liquids, gases), behaviours/ changing states and properties of particles. Effects of temperature (melting and freezing points and impact of surroundings), soluble/insoluble materials (dissolving).</li> <li>• Bubble structure – identifying different states and effect on bubbles. Measuring air.</li> <li>• Rock and soil: Formation of different types and their properties/uses. <i>Covered in the context of changing states in the formation of rocks.</i></li> </ul>	<p><b>Electricity:</b></p> <ul style="list-style-type: none"> <li>• Uses (light, movement, sound), common appliances and power source.</li> <li>• Simple, series and parallel circuits (complete/ incomplete), conductors and insulators.</li> </ul>	<p><b>Forces:</b></p> <ul style="list-style-type: none"> <li>• Identifying everyday forces in action and opposing forces. Gravity (Including G-Force and Newton Meters), Air resistance, friction, water resistance and interaction between forces. Levers and pulleys.</li> </ul>		



					<ul style="list-style-type: none"> <li>• Voltage, current and watts.</li> </ul>	
Figs	<p>Keeping Healthy</p> <ul style="list-style-type: none"> <li>• Exercise</li> <li>• Healthy diet</li> <li>• Effects of drugs –</li> <li>• Medicines</li> <li>• Tobacco/vaping</li> <li>• Alcohol</li> </ul>	<p><b>Biomes, ecosystems and habitats</b></p> <ul style="list-style-type: none"> <li>• Forest/jungle</li> <li>• Polar</li> <li>• Desert</li> <li>• Adaptations</li> <li>• Classification</li> <li>• Beak adaptations</li> </ul>	<p><b>Space</b></p> <ul style="list-style-type: none"> <li>• Solar system</li> <li>• Moon &amp; sun/moon phases</li> <li>• ESE</li> <li>• Soil investigation</li> <li>• Looking for evidence of micro-organisms</li> <li>• Investigating craters, lava and volcanoes on Mars</li> </ul>	<p><b>Sound</b></p> <ul style="list-style-type: none"> <li>• To investigate how sounds travel through different materials.</li> <li>• To investigate how some materials prevent vibrations reaching the ear?</li> <li>• Explore the relationship between distance and volume.</li> <li>• Investigate how length, thickness, tightness affect pitch</li> </ul>	<p><b>Chemical Reactions</b></p> <ul style="list-style-type: none"> <li>• Rusting</li> <li>• Burning</li> <li>• Acid and alkaline</li> </ul>	<p><b>Life cycles</b></p> <ul style="list-style-type: none"> <li>• Describe the process of sexual reproduction in flowering plants and animals.</li> <li>• Describe the process of asexual reproduction in plants.</li> <li>• Gestation periods</li> <li>• Puberty</li> <li>• How humans change</li> <li>• Research the work of naturalists.</li> </ul>
Ruds	<ul style="list-style-type: none"> <li>• Circulatory system</li> <li>• Blood</li> <li>Heart</li> <li>• Lungs</li> <li>Skeleton, Joints, Muscles and Tendons</li> <li>• Micro-organisms</li> </ul>		<ul style="list-style-type: none"> <li>• How we see things</li> <li>• How our eyes work</li> <li>• Shadows</li> <li>• Evolution and Inheritance</li> </ul>		<ul style="list-style-type: none"> <li>• Electricity</li> <li>• Science is Fun</li> <li>• Lava Lamp</li> <li>• Imagineering projects</li> </ul>	<ul style="list-style-type: none"> <li>• Science is Fun</li> <li>• Air Rocket</li> <li>• Soap Propelled boat</li> <li>• Hologram</li> </ul>