



St Anne's Science Progression Map

2021-2022



Year 3 and 4	Vocabulary	Working Scientifically	Knowledge, Skills and Understanding	Cross-Curricular Links	Enquiry questions
Autumn Notice patterns Observations Observe changes over time Order Prediction Present Questions Questions Record Results Results Secondary sources Similarities Sort Support/not support Table Thermometers Types of scientific enquiry	Attract Absorb water Bar magnet Boulder Button magnet Chalk Contact force Chalky soil Horseshoe magnet Clay soil Iron Crystals Magnet Fossils Magnetic force Grains Magnetic material Granite Metal Hard/soft Non-contact force Let water through Non-magnetic material Marble North pole Peat Poles Pebble Pull/pulling Rock Push/pushing Sandstone Repel Sandy soil Ring magnet Slate South pole Soil Steel Stone Strength Texture	<p>Planning</p> <ul style="list-style-type: none"> • Can they use different ideas and suggest how to find something out? • Can they make and record a prediction before testing? • Can they plan a fair test and explain why it was fair? • Can they set up a simple fair test to make comparisons? • Can they explain why they need to collect information to answer a question? <p>Obtaining and presenting evidence</p> <ul style="list-style-type: none"> • Can they measure using different equipment and units of measure? • Can they record their observations in different ways? (Labelled diagrams, charts etc.) • Can they describe what they have found using scientific language? 	<p>Rocks</p> <p>compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>recognise that soils are made from rocks and organic matter.</p> <p>Forces and Magnets</p> <p>compare how things move on different surfaces</p> <p>notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>observe how magnets attract or repel each other and attract some materials and not others</p>	<p>Maths – Tables and charts, bar graphs to represent data.</p> <p>English – Science investigation write ups, vocabulary games,</p>	<p>Classifying rocks based on their physical properties</p> <p>What is a fossil and how is it formed?</p> <p>What is soil made from?</p> <p>Which soil drains fastest?</p> <p>How can we group these different rocks?</p> <p>How are rocks formed?</p> <p>How are fossils formed?</p> <p>How do different surfaces affect the distance a car travels?</p> <p>Do magnets need to touch for them to work?</p>



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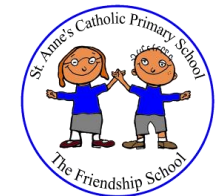


		<ul style="list-style-type: none">• Can they make accurate measurements using standard units? <p><u>Considering evidence and evaluating</u></p> <ul style="list-style-type: none">• Can they explain what they have found out and use their measurements to say whether it helps to answer their question?• Can they use a range of equipment (including a data logger) in a simple test?	<p>compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>describe magnets as having two poles</p> <p>predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>		<p>Which ends of the magnet attract/repel?</p> <p>Are all materials magnetic?</p> <p>Are magnets the same all the way through?</p> <p>Which ends of a magnet attract/repel?</p>
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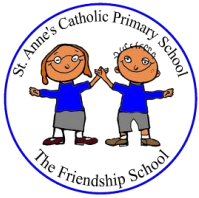


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<p>Spring</p> <p>Notice patterns</p> <hr/> <p>Observations</p> <hr/> <p>Observe changes over time</p> <hr/> <p>Order</p> <hr/> <p>Prediction</p> <hr/> <p>Present</p> <hr/> <p>Questions</p> <hr/> <p>Questions</p> <hr/> <p>Record</p> <hr/> <p>Results</p> <hr/> <p>Results</p> <hr/> <p>Secondary sources</p> <hr/> <p>Similarities</p> <hr/> <p>Sort</p> <hr/> <p>Support/not support</p> <hr/> <p>Table</p> <hr/> <p>Thermometers</p> <hr/> <p>Types of scientific enquiry</p> <hr/>	<p>Balanced diet</p> <hr/> <p>Bones</p> <hr/> <p>Bread, rice, potato, pasta</p> <hr/> <p>Carbohydrates</p> <hr/> <p>Dietary fibre</p> <hr/> <p>Fat</p> <hr/> <p>Food types</p> <hr/> <p>Foods high in fat or sugar</p> <hr/> <p>Fruit and vegetable</p> <hr/> <p>Joints</p> <hr/> <p>Meat, fish, egg, beans</p> <hr/> <p>Milk and dairy foods</p> <hr/> <p>Movement</p> <hr/> <p>Muscles</p> <hr/> <p>Nutrients</p> <hr/> <p>Nutrition</p> <hr/> <p>Protection</p> <hr/> <p>Protein</p> <hr/> <p>Ribs</p> <hr/> <p>Skeleton</p> <hr/> <p>Skull</p> <hr/> <p>Sockets</p> <hr/> <p>Spine/vertebra</p> <hr/> <p>Support</p> <hr/> <p>Tendons</p> <hr/> <p>Vitamins and mineral</p> <hr/> <p>Water</p> <hr/> <p>Seed</p> <hr/> <p>Seed dispersal</p> <hr/> <p>Seed formation</p> <hr/> <p>Soil</p> <hr/> <p>Stalk</p> <hr/> <p>Stem</p> <hr/> <p>Transported</p> <hr/> <p>Trunk</p> <hr/> <p>Use comparatives e.g. hotter</p> <hr/> <p>Water</p> <hr/>	<p><u>(Continue to build from Autumn term)</u></p> <p><u>Planning</u></p> <ul style="list-style-type: none"> • Can they use different ideas and suggest how to find something out? • Can they make and record a prediction before testing? • Can they plan a fair test and explain why it was fair? • Can they set up a simple fair test to make comparisons? • Can they explain why they need to collect information to answer a question? <p><u>Obtaining and presenting evidence</u></p> <ul style="list-style-type: none"> • Can they measure using different equipment and units of measure? • Can they record their observations in different ways? (Labelled diagrams, charts etc.) • Can they describe what they have found using scientific language? • Can they make accurate measurements using standard units? 	<p><u>Animals Including Humans</u></p> <p>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</p> <p>identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p><u>Plants</u></p> <p>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>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</p>	<p>English - Information leaflet about how to keep fit, the skeleton.</p> <p>Maths - Tables. Venn diagrams for sorting.</p> <p>English- the life cycle of a plant.</p>	<p>What do the different parts of a plant do?</p> <p>What is needed for a plant to grow?</p> <p>How does water get from the roots to the leaves?</p> <p>Why do plants have flowers?</p> <p>How does a plant disperse seeds?</p> <p>What would happen if I only ate...?</p> <p>Why do I need... to be healthy?</p> <p>What would happen if I didn't have ... skeleton, any muscles?</p>
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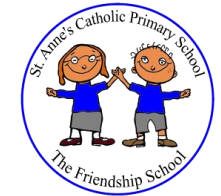


	Air Bark Berry Blossom Branch Bulb Damp/wet/dry Dark/light Fertiliser Flower Fruit Grow/growth Healthy Hot/warm/cool/cold Leaf/leaves Life cycle Light Nutrients Part Petal Pollination Role Root	<p><u>Considering evidence and evaluating</u></p> <ul style="list-style-type: none"> • Can they explain what they have found out and use their measurements to say whether it helps to answer their question? • Can they use a range of equipment (including a data logger) in a simple test? 	<p>investigate the way in which water is transported within plants</p> <p>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>		
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<p>Summer</p> <p>Accurate _____</p> <p>Answer _____</p> <p>Answers _____</p> <p>Bar charts _____</p> <p>Careful _____</p> <p>Changes _____</p> <p>Classify _____</p> <p>Comparative tests _____</p> <p>Conclusions _____</p> <p>Data loggers _____</p> <p>Data/evidence/results _____</p> <p>Differences _____</p> <p>Equipment _____</p> <p>Evidence _____</p> <p>Fair tests _____</p> <p>Gather _____</p> <p>Group _____</p> <p>Identify _____</p> <p>Keys _____</p> <p>Link _____</p> <p>Magnifying glass _____</p> <p>Measure _____</p> <p>Microscope _____</p>	<p>Building on from KS1</p> <p>Block _____</p> <p>Dark/darkness _____</p> <p>Direct/ direction _____</p> <p>Light source _____</p> <p>Mirror _____</p> <p>Names of light sources e.g. torch _____</p> <p>Opaque _____</p> <p>Reflect _____</p> <p>Reflective _____</p> <p>Shadow _____</p> <p>Translucent _____</p> <p>Transparent _____</p>	<p><u>Obtaining and presenting evidence</u></p> <ul style="list-style-type: none"> • Can they measure using different equipment and units of measure? • Can they record their observations in different ways? (Labelled diagrams, charts etc.) • Can they describe what they have found using scientific language? • Can they make accurate measurements using standard units? <p><u>Considering evidence and evaluating</u></p> <ul style="list-style-type: none"> • Can they explain what they have found out and use their measurements to say whether it helps to answer their question? • Can they use a range of equipment (including a data logger) in a simple test? 	<p><u>Light</u></p> <p>recognise that they need light in order to see things and that dark is the absence of light</p> <p>notice that light is reflected from surfaces</p> <p>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>find patterns in the way that the size of shadows change.</p>	<p>Shadow Puppets- DT</p> <p>What time of day produces the best shadows?</p>
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