

Bishop Wood Junior School – Science Curriculum

<u>Year Group</u>	<u>Area of Study</u>	<u>Key Skills</u>	<u>End Points</u>
Year 3	<p>Working Scientifically During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content.</p>	<ul style="list-style-type: none"> • asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment e.g thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to support their findings 	
	<p>Plants</p> <p>Working Scientifically Assessment Task – Measuring Plants</p>	<ul style="list-style-type: none"> • identify and describe the function of different parts of flowering plants: roots, stem, leaves and flowers • 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 • investigate the way in which water is transported within plants • explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • plan and carry out an investigation into how the amount of water affects the growth of a plant <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> • set up simple practical enquiries, comparative and fair tests <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • make systematic and careful observations • take accurate measurements using standard units using a range of equipment • gather and record data in a variety of ways • report on findings <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • identify differences, similarities or changes related to simple scientific ideas and processes • with help, use results to draw conclusions • use straightforward scientific evidence to answer questions or support their findings • with support, raise further questions

<p>Animals (including humans)</p> <p>Working Scientifically Assessment Task – Model Skeletons and / or Researching Skeletons</p>	<ul style="list-style-type: none"> • 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 animals have skeletons and muscles for support, protection and movement 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • use secondary sources to find out about the human skeleton <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> • ask relevant questions and use different types of scientific enquiries to answer them <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • gather and record data in a variety of ways • report on findings <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • with support, raise further questions
<p>Rocks</p> <p>Working Scientifically Assessment Task – Testing Soil</p>	<ul style="list-style-type: none"> • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things have lived are trapped within rock ☐ recognise that soils are made from rocks and organic matter 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • investigate the permeability of soil <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> • set up simple practical enquiries, comparative and fair tests <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • take accurate measurements using standard units using a range of equipment • record and present findings using drawings, labelled diagrams, keys, tally charts, Carroll diagrams, Venn diagrams, bar charts and tables <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • with help, uses results to draw simple conclusions • with support, uses results to suggest improvements on what they have done
<p>Light</p> <p>Working Scientifically Assessment Task – Materials and Shadows</p>	<ul style="list-style-type: none"> • recognise that they need light to see things and that dark is the absence of light • notice that light is reflected from surfaces ☐ recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light source is blocked by a solid object 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • investigate shadows produced by different materials <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> • set up simple practical enquiries, comparative and fair tests <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • make systematic and careful observations

		<ul style="list-style-type: none"> • find patterns in the way that the size of shadows change 	<ul style="list-style-type: none"> • gather and record data in a variety of ways • record and present findings using drawings, labelled diagrams, keys, tally charts, Carroll diagrams, Venn diagrams, bar charts and tables • report on findings <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • with help, uses results to draw simple conclusions • use straightforward scientific evidence to answer questions or to support their findings
	<p>Forces and Magnets</p> <p>Working Scientifically Assessment Task – Magnet Investigation and / or Shoe Grip</p>	<ul style="list-style-type: none"> • notice that some forces need contact between two objects but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • 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 • describe magnets as having two poles predict whether two magnets will attract or repel each other, depending on which poles are facing 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • plan a fair test • explain the results in terms of friction <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> • set up simple practical enquiries, comparative and fair tests <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • take accurate measurements using standard units using a range of equipment • gather and record data in a variety of ways • record and present findings using drawings, labelled diagrams, keys, tally charts, Carroll diagrams, Venn diagrams, bar charts and tables • report on findings <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • with help, uses results to draw simple conclusions • use straightforward scientific evidence to answer questions or to support their findings • with support, use results to suggest improvements to what they have done