

Bishop Wood Junior School – Science Curriculum

Year Group	Area of Study	Key Skills	End Points
Year 4	<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>Living Things and Their Habitats</p> <p>Working Scientifically Assessment Task – Troublesome Animals</p>	<ul style="list-style-type: none"> • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • use evidence to suggest what group an animal should belong to • explain why some animals are hard to classify <p>Working Scientifically Assessment Criteria:</p> <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • gather and record data in a variety of ways <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • use straightforward scientific evidence to answer questions or to support their findings
	<p>Animals (including humans)</p> <p>Working Scientifically Assessment Task – Teeth</p>	<ul style="list-style-type: none"> • describe the simple functions of the basic parts of the digestive system in humans • identify the different types of teeth in humans and their simple functions • construct and interpret a variety of food chains, identifying producers, predators and prey 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • plan an enquiry and record observations <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 • record and present findings using drawings, labelled diagrams, keys, tally charts, Carroll

			<p>diagrams, Venn diagrams, bar charts and tables</p> <ul style="list-style-type: none"> • 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>States of Matter</p> <p>Working Scientifically Assessment Task – Solids, Liquids and Gases</p>	<ul style="list-style-type: none"> • compare and group materials together, according to whether they are solids, liquids or gases • observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius • identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • describe what happens to the mass of lemonade as the gas bubbles escape <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"> • 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 	
<p>Sound</p> <p>Working Scientifically Assessment Task – Changing Pitch</p>	<ul style="list-style-type: none"> • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • ask relevant questions about how to change the pitch on musical instruments <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p>	

		<ul style="list-style-type: none"> • find patterns between the pitch of a sound and features of the object that produced it • find patterns between the volume of a sound and the strength of the vibrations that produced it • recognise that sounds gets fainter as the distance from the sound source increases 	<ul style="list-style-type: none"> • ask relevant questions and use different types of scientific enquiries to answer them • 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 <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • with help, use results to draw conclusions • with support, raise further questions
	<p>Electricity</p> <p>Working Scientifically Assessment Task – Identifying Conductors</p>	<ul style="list-style-type: none"> • identify common appliances that run on electricity • construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery • recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • recognise some common conductors and insulators and associate metals with being good conductors 	<p>By the end of the unit, children will be able to: use results to identify conductors of electricity</p> <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 • 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 help, use results to draw conclusions • with support, raise further questions