

Bishop Wood Junior School – Science Curriculum

Year Group	Area of Study	Key Skills	End Points
Year 5	Working Scientifically During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content.	<ul style="list-style-type: none"> planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments 	
	Earth and Space Working Scientifically Assessment Task – Changing Ideas	<ul style="list-style-type: none"> describe the movement of the Earth relative to the Sun in the solar system describe the movement of the Moon relative to the Earth describe the Sun, Moon and Earth as approximately spherical bodies use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> describe how ideas about the solar system and the Earth have changed over time identify how evidence was used to support or refute ideas about the Earth and the solar system <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> use their scientific experiences to explore ideas and raise different types of questions talk about how scientific ideas have developed over time <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> recognise which secondary source will be most useful to research their ideas begin to separate opinion from fact <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> identify scientific evidence that has been used to support or refute ideas or arguments use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas
	Living Things and Their Habitats	<ul style="list-style-type: none"> explain differences in the life cycles of a mammal, an amphibian, an insect and a bird 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> use secondary data to investigate a relationship

	<p>Working Scientifically Assessment Task – Gestation Length</p>	<ul style="list-style-type: none"> describe the life process of reproduction in some plants and animals 	<ul style="list-style-type: none"> draw a scatter graph to investigate a relationship and use the graph to look for patterns <p>Working Scientifically Assessment Criteria:</p> <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> record and present findings using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs report on findings from enquiries <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> identify patterns that might be found in the natural environment use results to identify when further tests and observations might be needed
	<p>Animals (including humans)</p> <p>Working Scientifically Assessment Task – Life Expectancy</p>	<ul style="list-style-type: none"> describe the changes as humans develop from birth to old age 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> explore the relationship between gestation periods and life expectancy compare the two variables and then discuss the kind of relationship they have with one another <p>Working Scientifically Assessment Criteria:</p> <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> record and present findings using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs report on findings from enquiries <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> identify patterns that might be found in the natural environment use results to identify when further tests and observations might be needed
	<p>Properties of Materials</p> <p>Working Scientifically Assessment Task – Dissolving Skittles</p>	<ul style="list-style-type: none"> compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, transparency, conductivity (electrical and thermal), and responses to magnets 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> plan an investigation of the dissolving of colour from a skittle <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> plan different types of scientific enquiries to answer questions

		<ul style="list-style-type: none"> • understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • give reasons, based on evidence from comparative and fair tests for the particular uses of everyday materials, including metals, wood and plastic ☐ demonstrate that dissolving, mixing and changes of state are reversible changes • explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 	<ul style="list-style-type: none"> • recognise and control variables <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • record and present findings using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • report on findings from enquiries <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • draw valid conclusions, explain and interpret the results (including degree of trust) • use test results to make predictions and set up further comparative fair tests
	<p>Forces</p> <p>Working Scientifically Assessment Task - Parachutes</p>	<ul style="list-style-type: none"> • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction that act between moving surfaces • recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> • plan and carry out a test to investigate the action of parachutes <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <p>plan different types of scientific enquiries to answer questions</p> <ul style="list-style-type: none"> • recognise and control variables <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> • take measurements • take repeat readings • record data and results of increasing complexity <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> • Identify conclusions, causal relationships and explanation of results (including the degree of trust) • use test results to make predictions and set up further comparative fair tests