

Bishop Wood Junior School – Science Curriculum

Year Group	Area of Study	Key Skills	End Points
Year 6	<p>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.</p>	<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 	
	<p>Living Things and Their Habitats</p> <p>Working Scientifically Assessment Task - Yeast</p>	<ul style="list-style-type: none"> describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals give reasons for classifying plants and animals based on specific characteristics 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> investigate the respiration of yeast use the results as evidence that yeast is a living organism <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> plan different types of scientific enquiry to answer questions recognise and control variables <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> use test results to make predictions and set up further comparative fair tests
	<p>Animals (including humans)</p> <p>Working Scientifically Assessment Task – Investigating Pulse Rate</p>	<ul style="list-style-type: none"> identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> present results in a line graph and explain what these show and whether they support the prediction evaluate the reliability of data <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> plan different types of scientific enquiry to answer questions recognise and control variables <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> take measurements take repeat readings

			<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 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
	<p>Evolution and Inheritance</p> <p>Working Scientifically Assessment Task – Birds and Beaks</p>	<ul style="list-style-type: none"> recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> plan an investigation to find out which tool is best at picking up seeds interpret results and discuss the degree of trust describe how Darwin used evidence about different beaks to support his ideas about natural selection <p>Working Scientifically Assessment Criteria:</p> <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 test results to make predictions and set up further comparative fair tests
	<p>Light</p> <p>Working Scientifically Assessment Task – Investigating Shadows</p>	<ul style="list-style-type: none"> recognise that light appears to travel in straight lines use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> record and present findings in a table and a line graph write a conclusion explaining what the results show use test results to make further predictions <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> plan different types of scientific enquiry to answer questions recognise and control variables <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> take measurements record data and results of increasing complexity record and present findings using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

			<ul style="list-style-type: none"> report on findings from enquiries <p>Considering and evaluating evidence:</p> <ul style="list-style-type: none"> identify conclusions, causal relationships and explanations of results (including the degree of trust) use test results to make predictions and set up further comparative fair tests
	<p>Electricity</p> <p>Working Scientifically Assessment Task – Changing Components</p>	<ul style="list-style-type: none"> associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches use recognised symbols when representing a simple circuit in a diagram 	<p>By the end of the unit, children will be able to:</p> <ul style="list-style-type: none"> explain how the brightness of bulbs or the loudness of buzzers can be changed in a series circuit using symbols to draw circuit diagrams <p>Working Scientifically Assessment Criteria:</p> <p>Planning:</p> <ul style="list-style-type: none"> plan different types of scientific enquiry to answer questions recognise and control variables <p>Obtaining and presenting evidence:</p> <ul style="list-style-type: none"> take measurements record data and results of increasing complexity record and present findings using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs <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