



WOODVALE PRIMARY ACADEMY

Skills progression and curriculum coverage: Working Scientifically

Working Scientifically:	By the end of Year 2:		By the end of Year 4:		By the end of Year 6:	
Questioning:	Children should be able to ask simple questions and recognise that they can be answered in different ways.		Ask relevant questions and using different types of scientific enquiries to answer them.		Children should be able to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	
Curriculum coverage	Year 1: Moon Zoom	Year 2: The Scented Garden Wriggle & Crawl What is the lifecycle of a ladybird?	Year 3: Urban Pioneers Why do cats eyes glow at night? Can you block magnetism?	Year 4: Blue Abyss Why does it flood? Are all sea creatures the same?	Year 5:	Year 6: Blood Heart x2 Darwin's Delights Tomorrow's World Can you send a coded message Frozen Kingdoms
Measurement:	Children should be able to observe closely, using simple equipment.		Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		Children should be able to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	
Curriculum coverage	Year 1: Splendid Skies x2 All the leaves the same? How does it move? How big is a raindrop?	Year 2: Towers, Tunnels & Turrets Wriggle & Crawl Can you make a paper bridge? How does grass grow?	Year 3: Mighty Metals Can you block magnetism?	Year 4: Blue Abyss Why does it flood?	Year 5: Stargazers x2	Year 6: Blood Heart x3



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	How wild is the wind?					
Investigation:	Children should be able to perform simple tests.		Set up simple practical enquiries, comparative and fair tests.		Children should be able to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	
Curriculum coverage	Year 1: Moon Zoom Paws, Claws & Whiskers Splendid Skies What can our hands do? How big is a raindrop?	Year 2: Towers, Tunnels & Turrets x2 Wriggle & Crawl Do snails have noses? Can you make a paper bridge? Beat band boogie x2 Can water make music? Can seeds grow anywhere? How does grass grow? What's on your wellies?	Year 3: Mighty Metals x2 How do fossils form? What is sand? What is soil?	Year 4: What is spit for? How did the Vikings dye their clothes? How does pollution affect habitats? What do squirrels eat? Can worms sense danger?	Year 5: Alchemy Island Stargazers Time Traveller Sow, Grow & Farm	Year 6: Blood Heart Darwin's Delight x4 Gallery Rebels Tomorrow's World Frozen Kingdoms What can your heart rate tell you? How can we make red?
Observation:	Children should be able to identify and classify.		Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		Children should be able to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	



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			Identify differences, similarities or changes related to simple scientific ideas and processes.			
Curriculum coverage	<p>Year 1: Paws, Claws & Whiskers Splendid Skies Are all the leaves the same? Bright lights, Big city How does it move? Does it snow in summer?</p>	<p>Year 2: The Scented Garden x3 Towers, Tunnels & Turrets Will it degrade? How do germs spread? Where do snails live? Can water make music?</p>	<p>Year 3: Mighty Metals Predator! X3 What are sunglasses for? What is soil? Can you block magnetism? What does friction do? How mighty are magnets? Why are trees tall? What do owls eat? How do worms move?</p>	<p>Year 4: Burps, Bottoms & Bile How do smells get up your nose? Did the Romans use toilet roll? Can we block sound? How far can sound travel? How does toothpaste protect teeth? How does pollution affect habitats? Where does water go? Why does it flood?</p>	<p>Year 5: Alchemy Island x2 How do levers help us? How do rockets lift off? Why are zip-wires so fast?</p>	<p>Year 6: Can you turn a light down? How many worms are underground? Can we slow cooling down? How do animals stay warm?</p>
Report and conclude:	Children should be able to use their observations and ideas to suggest answers to questions.		Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.		Children should be able to use test results to make predictions to set up further comparative and fair tests. Children should report and present 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.	



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						Children should identify scientific evidence that has been used to support or refute ideas or arguments.
Curriculum coverage	<p>Year 1: Splendid Skies How big is a raindrop? How wild is the wind?</p>	<p>Year 2: The Scented Garden x2 Wriggle & Crawl Do insects have a favourite colour? Do snails have noses? What is the lifecycle of a ladybird? Will it degrade? How do germs spread? Beat band boogie Can water make music? What's on your wellies?</p>	<p>Year 3: Mighty Metals Why do cats eyes glow at night? Why do shadows change? What are sunglasses for? How do fossils form? What is sand? Why do magnets attract and repel? What are our joints for? How do worms move?</p>	<p>Year 4: Blue Abyss Burps, Bottoms & Bile x5 Can you make a circuit from playdough? How do smells get up your nose? What is spit for? Did the Romans use toilet roll? How did the Vikings dye their clothes? Can we block sound? How can we change a sound? How far can sound travel? How does toothpaste protect teeth? How does pollution affect habitats? What do squirrels eat?</p>	<p>Year 5: Alchemy Island x2 Stargazers x3 Time Traveller How do levers help us? How does the moon move? How do rockets lift off?</p>	<p>Year 6: Darwin's Delights Why are things classified? How does blood flow? What's in blood? What can your heart rate tell you? How can we make red? What colour is a shadow? How does light travel? What are reflections? Can you see through it? How have eyes evolved? Where do wild plants grow best? Why do birds have different beaks? Why is holly prickly?</p>



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				Can worms sense danger?		Can we slow cooling down? How do animals stay warm?
Gather and record data:	Children should be able to gather and record data to help in answering questions.		Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.		Children should be able to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	
Curriculum coverage	Year 1: Moon Zoom Paws, Claws & Whiskers Splendid Skies What can our hands do? How does it move? Does it snow in summer?	Year 2: Towers, Tunnels & Turrets Wriggle & Crawl Do insects have a favourite colour? Will it degrade? Where do snails live? Beat band boogie Can seeds grow anywhere? How does grass grow? What's on your wellies?	Year 3: Mighty Metals Predator! X5 What are flowers for? What is soil? How mighty are magnets? Why are trees tall? What do owls eat?	Year 4: Blue Abyss Burps, Bottoms & Bile x2 What conducts electricity? How do plugs work? How did the Vikings dye their clothes? Where does water go? Are all sea creatures the same?	Year 5: Stargazers Time Traveller Why are zip-wires so fast?	Year 6: Darwin's Delights x2 Why are things classified? Can you send a coded message? What's in blood? What can your heart rate tell you? What colour is a shadow? How does light travel? Can you turn a light down? How have eyes evolved? How many worms are underground?



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						Where do wild plants grow best? Why do birds have different beaks? Can we slow cooling down?
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