



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 Animals Yr 1 Everyday Materials Yr 1 Humans Yr 1 Plants Yr 1 Seasonal Changes Yr 1 What can worms sense?	Year 2: The Scented Garden Wriggle & Crawl What is the lifecycle of a ladybird? Animals Yr 2 Humans Yr 2 Living things and their Habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2	Year 3: Urban Pioneers Why do cats eyes glow at night? Animals including humans Yr 3 Forces and Magnets Yr 3 Light Yr 3 Plants Yr 3	Year 4: Blue Abyss Are all sea creatures the same? Electricity Yr 4 Living things and their Habitats Yr 4 Sound Yr 4 States of Matter Yr 4	Year 5: Alchemy Island Animals including Humans Yr 5 x2 Can you clean dirty water? Earth and Space Yr 5 x2 Forces Yr 5 x2 Properties and changes of materials Yr 5 x2 Sow, Grow and Farm Stargazers Time Traveller Will it erupt?	Year 6: Animals including Humans Yr 6 x2 Blood Heart x3 Darwin's Delights x5 Electricity Yr 6 x2 Evolution and Inheritance Yr 6 x2 Tomorrow's World Frozen Kingdoms x2 Light Yr 6 x2 What can your heart rate tell you?
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.	



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Curriculum coverage	Year 1: Splendid Skies x2 All the leaves the same? How big is a raindrop? How wild is the wind? Animals Yr 1 Everyday Materials Yr 1 Humans Yr 1 Plants Yr 1 Seasonal Changes Yr 1	Year 2: Wriggle & Crawl How does grass grow? Animals Yr 2 Humans Yr 2 Living things and their habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2	Year 3: Mighty Metals x2 Animals including humans Yr 3 x2 Forces and Magnets Yr 3 x2 How mighty are magnets? Light x2 Plants Yr 2 Predator x3 What do owls eat?	Year 4: Blue Abyss Burps, Bottoms and Bile Electricity Yr 4 How do smells get up your nose? How does pollution affect habitats? How does toothpaste protect teeth? How far can sound travel? Living things and their habitats Yr 4 x2 Sound Yr 4 x2 States of Matter Yr 4 x2	Year 5: Stargazers x2 Alchemy Island x2 Animals including Humans Yr 5 x2 Earth and Space Yr 5 x2 Forces Yr 5 x2 Properties and changes of materials Yr 5 x2	Year 6: Blood Heart x3 Animals including Humans Yr 6 Electricity Yr x2 Evolution and Inheritance Yr 6 x2 Light Yr 6 x2
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	Year 2: Wriggle & Crawl Beat band boogie x2 Can water make music?	Year 3: Mighty Metals x2 Animals including Humans Yr 3 Forces and Magnets Yr 3	Year 4: What is spit for? How does pollution affect habitats? Electricity Yr 4	Year 5: Burps, Bottoms and Bile Electricity Yr 4 How do smells get up your nose?	Year 6: Animals including Humans Yr 6 x2 Blood Heart x3 Darwin's Delights x5 Electricity Yr 6 x2



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	<p>What can our hands do? How big is a raindrop?</p>	<p>Can seeds grow anywhere? How does grass grow? Animals Yr 2 Humans Yr 2 Living things and their habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2</p>	<p>Light Yr 3 Plants Yr 3</p>	<p>Living things and their habitats Yr 4 Sound Yr 4 States of Matter Yr 4</p>	<p>How does pollution affect habitats? How does toothpaste protect teeth? How far can sound travel? Living things and their habitats Yr 4 x2 Sound Yr 4 x2 States of Matter Yr 4 x2</p>	<p>Evolution and Inheritance Yr 6 x2 Tomorrow's World Frozen Kingdoms x2 Light Yr 6 x2 What can your heart rate tell you?</p>
<p>Observation:</p>	<p>Children should be able to identify and classify.</p>	<p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p>		<p>Children should be able to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p>		
		<p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p>				



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Curriculum coverage	Year 1: Paws, Claws & Whiskers Splendid Skies Are all the leaves the same? Bright lights, Big city	Year 2: The Scented Garden x3 Will it degrade? How do germs spread? Where do snails live? Can water make music? Animals Yr 2 Humans Yr 2 Living things and their habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2	Year 3: Mighty Metals x2 Animals including humans Yr 3 x2 Forces and Magnets Yr 3 x2 How mighty are magnets? Light x2 Plants Yr 2 Predator x3 What do owls eat?	Year 4: Blue Abyss Burps, Bottoms and Bile Electricity Yr 4 How do smells get up your nose? How does pollution affect habitats? How does toothpaste protect teeth? How far can sound travel? Living things and their habitats Yr 4 x2 Sound Yr 4 x2 States of Matter Yr 4 x2	Year 5: Stargazers x2 Alchemy Island x2 Animals including Humans Yr 5 x2 Earth and Space Yr 5 x2 Forces Yr 5 x2 Properties and changes of materials Yr 5 x2	Year 6: Blood Heart x3 Animals including Humans Yr 6 Electricity Yr x2 Evolution and Inheritance Yr 6 x2 Light Yr 6 x2
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			Animals including Humans Yr 3 Forces including Magnets Yr 3 How mighty are magnets? Light Yr 3 Mighty Metals Plants Yr 3 Predator x3	Burps, Bottoms and Bile Electricity Yr 4 How do smells get up your nose? How does toothpaste protect teeth? Living things and their habitats Yr 4 Sound Yr 4 States of Matter Yr 4		
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. Children should identify scientific evidence that has been used to support or refute ideas or arguments.			



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Curriculum coverage	Year 1: Splendid Skies How big is a raindrop? How wild is the wind?	Year 2: The Scented Garden x2 Wriggle & Crawl What is the lifecycle of a ladybird? Will it degrade? How do germs spread? Beat band boogie Can water make music? Animals Yr 2 Humans Yr 2 Living things and their habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2	Year 3: Animals including Humans Yr 3 Forces and Magnets Yr 3 Light Yr 3 Plants Yr 3 Mighty Metals Why do cats' eyes glow at night? Why do shadows change? X2 Why do magnets attract and repel? X2 What are our joints for? X2	Year 4: Blue Abyss Burps, Bottoms & Bile x5 Electricity Yr 4 How do smells get up your nose? What is spit for? How far can sound travel? How does toothpaste protect teeth? How does pollution affect habitats? Living things and their habitats Yr 4 Sound Yr 4 States of Matter Yr 4	Year 5: Alchemy Island x2 Animals including Humans Yr 5 Can we track the sun? x2 Can you clean dirty water? Do we slow down as we get older? Earth and Space Yr 5 Forces Yr 5 How do we know the Earth is round? X2 How does the moon move? X2 Properties and changes of materials Yr 5 Stargazers x3 Time Traveller Will it erupt?	Year 6: Animals including Humans Yr 6 Can you see through it? X2 Darwin's Delights Electricity Yr 6 Evolution and Inheritance Yr 6 How does light travel? How have eyes evolved? Light Yr 6 What can your heart rate tell you? What's in blood? Where do wild plants grow best? Why are things classified? Why do birds have different beaks?
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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?	Year 2: Wriggle & Crawl Will it degrade? Where do snails live? Beat band boogie Can seeds grow anywhere? Animals Yr 2 How does grass grow? Humans Yr 2 Living things and their habitats Yr 2 Plants Yr 2 Uses of everyday materials Yr 2	Year 3: Mighty Metals Predator! X5 What are flowers for? X2 How mighty are magnets? What do owls eat? X2 Animals including Humans Yr 3 Forces and Magnets Yr 3 Light Yr 3 Plants Yr 3	Year 4: Blue Abyss Burps, Bottoms & Bile x2 What conducts electricity? How do plugs work? Are all sea creatures the same? Electricity Yr 4 Living things and their habitats Yr 4 Sound Yr 4 States of Matter Yr 4	Year 5: Animals including Humans Yr 5 Do we slow down as we get older? Earth and Space Yr 5 Forces Yr 5 Properties and changes of materials Yr 5 Stargazers Time Traveller	Year 6: Animals including Humans Yr 6 Darwin's Delights x2 Electricity Yr 6 Evolution and Inheritance Yr 6 How does light travel? How have eyes evolved? Light Yr 6 What can your heart rate tell you? What's in blood? Where do wild plants grow best? Why are things classified? Why do birds have different beaks?



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