



Science Long Term Plan

Woodlands Academy

Science intent:

The intent of the science curriculum is to promote enjoyment of science and to foster wonder and curiosity about the world around us. Pupils in all pathways experience the three strands of science, learning about, the diversity of the world, how the world works and what the world is made up from. We aim to build on prior knowledge and embed core knowledge, enabling pupils to apply this to different settings and encourage independent thinking. The curriculum has a strong practical base relevant to each pathway, with the purpose of making learning accessible, engaging and bringing science to life. The science curriculum incorporates careers in science and real-world applications as well as skills for life. Literacy, oracy, maths and ICT skills are supported throughout the curriculum. The academy/trust values and golden rules of behaviour underpin the curriculum.

Cultural Capital:

Science seeks opportunities to increase the cultural capital of pupils through discussion about real world, current, everyday events. STEM opportunities are provided to support pupils making these links. Science capital is a measure of the engagement of students with science, how much they value it and whether they feel it is “for them” and connected to their life. Science lessons are hands on and heavily practical based to promote life skills and engage all our learners.



CONFIDENCE



CHALLENGE



CURIOSITY



CHARACTER



CREATIVITY

Subject: Science	Accreditation/ Assessment: AQA Unit Awards	Pathway: Yellow
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Pathway Yellow: Pupils encounter science in cross curricular themes. Science is taught through a sensory approach using activities such as sensory based play and attention autism to help young people engage with more scientific concepts. Pupils are assessed against the engagement model/ KS1 NC Outcomes.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	My Wonderful Health		My community		In the garden	
Year 1	Feelings	Body Wise	Transport	Passport to the world	Seaside	Under the water
Science	How are we the same and different?	Keeping my body healthy	Push, pulls and twists	Everyday materials	Light and dark	Habitats and animals
Topic	Home and School		My community		In the garden	
Year 2	Me, Myself and I	My World	People who help	World of work	Plants	Under the garden
Science	Human bodies	Earth and space	Exploring Materials	How do things work?	Life of Plants	Habitats and animals



Subject: Science	Accreditation: AQA unit awards (at pre entry level, entry level, level 1-3)	Pathway: Green
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		<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>KS4</u> <u>STEM</u>	Cycle 1	Rocks and the water cycle	Cells and reproduction	Electricity	metals	Energy resources	Human body (skeleton/muscles and blood /heart)
	Cycle 2	Chemical reactions	Waves – light and sound	Digestion	Properties of materials	Interdependence	Forces

		<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>KS3/4</u>	Cycle 1	Electricity and Magnets	States of matter and separation techniques	Cells and Human body	Forces and Waves	Plants and inter dependence	Properties of materials/ acids and alkalis
	Cycle 2	Space and energy	Chemical reactions/ Earths resources	Variation/Evolution and Human Reproduction	Electricity and Magnets	States of matter and separation techniques	Cells and Human body
	Cycle 3	Forces and Waves	Space and energy	Properties of materials/ acids and alkalis	Plants and inter dependence	Chemical reactions/ Earths resources	Variation/Evolution and Human Reproduction

Broad coverage of National Curriculum topics at an appropriate level, with a view to Entry Level and Unit Award assessment. Highly differentiated to need.

Working Scientifically

Working scientifically is woven through the content of three strands of science. The areas covered include: measurement, experiment skills and investigation, analysis and evaluation and scientific attitudes.



		<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>KS2</u>	Cycle 1	Properties and changes in materials (1)	Light and Sound	Electricity	Animals – human development	Properties and changes in materials (2)	Living things and their habitats – life cycles
	Cycle 2	Animals including Humans	Earth and Space	Rocks	Evolution and inheritance	Forces	Living things and their habitats - classification
Broad coverage of National Curriculum topics at an appropriate level, with a view to Entry Level and Unit Award assessment. Highly differentiated to need.							
Working Scientifically		Working scientifically is woven through the content of three strands of science. The areas covered include: measurement, experiment skills and investigation, analysis and evaluation and scientific attitudes.					



Subject: Science	Accreditation: AQA GCSE Science Double award, AQA ELC Science double award	Pathway: Blue
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		<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>KS4</u>	Cycle 1	Topic(s): Biology – The Human Body	Topic(s): Biology – The Human Body Topic: Chemistry – Elements, mixtures and compounds	Topic(s): Chemistry – Elements, mixtures and compounds Coursework	Topic(s): Physics – force, energy and structure of matter	Topic(s): Physics – force, energy and structure of matter Coursework	Topic(s): Biology – Environment, evolution and inheritance
	Cycle 2	Topic(s): Biology – Envi/ evolution and inheritance Topic: Chemistry – Chemistry in our World	Topic: Chemistry – Chemistry in our World	Topic Physics- Electricity, Magnetism and Waves	Topic Physics- Electricity, Magnetism and Waves Coursework Revision for GCSE exams	Revision for GCSE exams	Revision for GCSE exam
<u>KS3</u>	Cycle 1	Particle model Separating mixtures	Gravity and the Universe	Digestion	Periodic table and elements	Magnets and electromagnets	Plant reproduction and Photosynthesis
	Cycle 2	Metals and non metals/ Acids and alkalis	Light and Sound	Body Movement	Earths Resources	Pressure/ Heating and Cooling	Human reproduction and Interdependence
	Cycle 3	Chemical reaction and types of reactions	Electricity	Breathing and Respiration	Earths structure and Climate	Variation, Evolution and \inheritance	Energy transfers and contact forces



<u>KS2</u>	Cycle 1	Properties and changes in materials (1)	Light and Sound	Electricity	Animals – human development	Properties and changes in materials (2)	Living things and their habitats – life cycles
	Cycle 2	Animals including humans	Earth and Space	Rocks	Evolution and inheritance	Forces	Living things and their habitats - classification
Working Scientifically		Working scientifically is woven through the content of the three strands of science. The areas covered include: measurement, experimental skills and investigations, analysis and evaluation and scientific attitudes					

