

SCIENCE LONG TERM PLAN

Key Stage 3	Autumn			Spring			Summer		
Unit Title	<b>Separating Materials</b>	<b>The Earth and Rocks</b>	<b>Variation and Classification</b>	<b>Changing Materials</b>	<b>Forces and Motion</b>	<b>Keeping Healthy</b>	<b>Grouping and Classifying Materials</b>	<b>Weather</b>	<b>Living Things and their Environment</b>
Key areas	The Chemical Industry	Fossils, rocks and soils	Evolution, inheritance and variation	The nature of matter	Forces	The muscular skeletal and respiratory systems	Properties of everyday materials	Weather	Reproduction
Skills Focus	Performing simple tests	Participating in field work	Reporting on findings	Working with precision and accuracy	Recognising and controlling variables	Making predictions	Identifying similarities, differences and changes.	Taking measurements using a range of Scientific apparatus	Labelling diagrams
Key vocabulary	Chemicals, test, plan, variables	Fossils, rocks, soil, erosion	Difference, change, evolution	Particles, atoms	Forces, push, pull, friction	Skeleton, bones, lungs, muscles	Flexible, rigid, hard, soft	Sun, rain, wind, snow, hot, cold	Babies, reproduction



**British Values**

Updated  
by Claire  
Boyd

September 2024

Science at Meadowside teaches pupils to develop an understanding of the world, its diversities, and how it works. Through Science, pupils develop and understanding of how seemingly unrelated things can be linked, and how different parts of the world rely on other parts to function. Science promotes the richness and celebrates the connectedness of the Earth and its inhabitants, and highlights the positive and negative impacts humans can have on each other and the environment. Learning about scientific laws, even in the simplest ways, can teach cause and effect and the concept of consequences. Acquisition of these knowledge and skills supports pupils to apply British Values, where the same principles are required, valued and necessary.

Key Stage 3	Autumn			Spring			Summer		
Unit Title	<b>Separating Materials</b>	<b>Electricity</b>	<b>Keeping Healthy</b>	<b>Changing Materials</b>	<b>Light and Sound</b>	<b>Green Plants</b>	<b>Grouping and Classifying Materials</b>	<b>Forces and Motion</b>	<b>Variation and Classification</b>
Key areas	Rocks and soils, the water cycle	Domestic energy	Nutrition and digestion	Chemical reactions	Waves	Photosynthesis	Physical changes in matter	Energy in matter incl. Energy changes and transfers	Genes, DNA, inheritance and chromosomes
Skills Focus	Setting up fair tests incl. dealing with variables	Applying mathematical calculations incl. using graphs	Recording data incl. using graphs	Making predictions	Identifying further questions from results	Recording findings using observational drawings and labelled diagrams	Working with precision, accuracy and repetition	Understanding and using scientific units of measure	Undertake basic data analysis
Key vocabulary	Condensation, evaporation	Electricity, gas	Food, digestion	Reversible changes	Light, sound, waves, travel	Green plants, chlorophyll	Irreversible changes	Gravity, buoyancy, energy	Genes, DNA, inheritance
Links to other subjects	Geography	ILS/DLS, Maths	Maths, ILS/DLS		Music	Art	Maths, ILS/DLS	Maths	



**British Values**

Updated  
by Claire  
Boyd

September 2024

Science at Meadowside teaches pupils to develop an understanding of the world, its diversities, and how it works. Through Science, pupils develop and understanding of how seemingly unrelated things can be linked, and how different parts of the world rely on other parts to function. Science promotes the richness and celebrates the connectedness of the Earth and its inhabitants, and highlights the positive and negative impacts humans can have on each other and the environment. Learning about scientific laws, even in the simplest ways, can teach cause and effect and the concept of consequences. Acquisition of these knowledge and skills supports pupils to apply British Values, where the same principles are required, valued and necessary.

Key Stage 3	Autumn			Spring			Summer		
Unit Title	<b>Grouping and Classifying Materials</b>	<b>Space</b>	<b>Keeping Healthy</b>	<b>Separating Materials</b>	<b>Electricity and Magnetism</b>	<b>Living Things and their Environment</b>	<b>Changing Materials</b>	<b>Light and Sound</b>	<b>Green Plants</b>
Key areas	Materials	The Solar System	Health	Mixtures, dissolving, chromatography	Circuits and currents and magnets	Food chains and eco systems	Solids, liquids and gases	Light and dark, shadows and sound	Photosynthesis
Skills Focus	Identifying and Classifying	Asking simple questions	Using results to set up further testing	Taking measurements, using apparatus and a range of investigative techniques	Observing health and safety	Identifying scientific evidence used to support an idea	Identifying similarities, differences and changes	Making observations	Set up practical enquiries and comparative fair tests
Key vocabulary	Glass, plastic, metal, wood	Sun, stars, moon, solar system	Healthy, well, unhealthy, fit,	Mix, dissolve, separate	Electricity, circuit, magnet, safety	Predator, prey, food	Solid, liquid, gas	Light, dark, shadow, sound	Green plants, food, photosynthesis
Links to other subjects	DT	Careers	PE, PHSE	ILS/DLS	DT, Careers	Maths	ILS/DLS	Art, Music	Maths



**British Values**

Updated  
by Claire  
Boyd

September 2024

Science at Meadowside teaches pupils to develop an understanding of the world, its diversities, and how it works. Through Science, pupils develop and understanding of how seemingly unrelated things can be linked, and how different parts of the world rely on other parts to function. Science promotes the richness and celebrates the connectedness of the Earth and its inhabitants, and highlights the positive and negative impacts humans can have on each other and the environment. Learning about scientific laws, even in the simplest ways, can teach cause and effect and the concept of consequences. Acquisition of these knowledge and skills supports pupils to apply British Values, where the same principles are required, valued and necessary.

SCIENCE LONG TERM PLAN



Key Stage 4	Autumn			Spring			Summer		
Unit Title	<b>Grouping and Classifying Materials</b>	<b>Space</b>	<b>Keeping Healthy</b>	<b>Separating Materials</b>	<b>Electricity and Magnetism</b>	<b>Living Things and their Environment</b>	<b>Changing Materials</b>	<b>Light and Sound</b>	<b>Green Plants</b>
Key areas	Materials	The Solar System	Health	Mixtures, dissolving, chromatography	Circuits and currents and magnets	Food chains and eco systems	Solids, liquids and gases	Light and dark, shadows and sound	Photosynthesis
Skills Focus	Select appropriate techniques and tests	Using an appropriate number of significant figures] in calculations	Explaining every day/technological appliances of science.	Planning an experiment to test a hypothesis/explore a phenomena	Evaluating risk	Interpret data, identify patterns and trends	Apply the cycle of collecting, presenting and analysing data.	Planning tests to explore phenomena	Developing use of scientific vocabulary
Key vocabulary	Transparent, translucent, opaque	Planets, light years	Drugs, alcohol, medicine	Chromatography, solution, solute	Circuit, current, magnet	Food chain, food web, eco system	Solids, liquids and gases	Light, sound, darkness, shadow	Chlorophyll, photosynthesis, light
Accreditation		<u>Pre-entry Level-</u> Our Place in Space 106945 <u>Entry Level-</u> Introduction to Earth and Space 112541 <u>Level One-</u> Aspects of Earth, Sun and Space 89106				<u>Pre-Entry Level-</u> Food Chains 113929 <u>Entry Level-</u> Finding out about Food Chain Links with Assistance 110538 <u>Level One-</u> Food Webs 113931	<u>Pre-Entry Level-</u> Science: Changing Materials with Support 113350 <u>Entry Level-</u> Science (Unit 17b): Changing Materials 91613 <u>Level One-</u> States of Matter and their properties 113594		
Links to other subjects	DT	Maths, Careers	PE, PHSE, Careers	Art	DT, Careers	Maths	Maths	Art, Music	English

2024-2025



**British Values**  
Updated by Claire Boyd

September 2024

Science at Meadowside teaches pupils to develop an understanding of the world, its diversities, and how it works. Through Science, pupils develop and understanding of how seemingly unrelated things can be linked, and how different parts of the world rely on other parts to function. Science promotes the richness and celebrates the connectedness of the Earth and its inhabitants, and highlights the positive and negative impacts humans can have on each other and the environment. Learning about scientific laws, even in the simplest ways, can teach cause and effect and the concept of consequences. Acquisition of these knowledge and skills supports pupils to apply British Values, where the same principles are required, valued and necessary.

SCIENCE LONG TERM PLAN



Key Stage 4	Autumn			Spring			Summer		
Unit Title	<b>Separating Materials</b>	<b>The Earth and Rocks</b>	<b>Variation and Classification</b>	<b>Changing Materials</b>	<b>Forces and Motion</b>	<b>Keeping Healthy</b>	<b>Grouping and Classifying Materials</b>	<b>Weather</b>	<b>Living Things and their Environment</b>
Key areas	The Chemical Industry	Fossils, rocks and soils	Evolution, inheritance and variation	The nature of matter	Forces	The muscular skeletal and respiratory systems	Properties of everyday materials	Weather	Reproduction
Skills Focus	Explaining every day uses of Science and Tech'	Carry out experiments appropriately.	Understanding how scientific theory develops over time.	Evaluate methods and suggest improvements	Select best technique, apparatus, material etc. to use in studies.	Present reasoned explanations	Recognise the importance of peer review.	Present observations, translate data from one to another	Considering the power/ limitations of Science incl. ethical issues
Key vocabulary	Science, industry, STEM	Fossil, rock, soil, ingenious, metamorphic etc.	Evolution, environment, impact	Solid, liquid, gas	Push, pull, gravity, friction	Muscles, bones, lungs, oxygen	Waterproof, porous	Storm, precipitation, drought	Reproduction, IVF, ethics
Accreditation	<u>Pre-entry Level-</u> Science: Separating Solids with Support 113349 <u>Entry Level-</u> Science: Separating Materials 113617 <u>Level 1-</u> Introduction to Chemistry- Separating Substances 87212					<u>Pre-Entry Level-</u> Keeping Healthy with Assistance 106940 <u>Entry Level-</u> Biology: Introduction to the Systems in the Human Body 72666 <u>Level One-</u> Biology: Respiration 113477		<u>Pre-Entry Level-</u> Weather Observation 83859 <u>Entry Level-</u> Weather Recording 88136 <u>Level One-</u> Statistics 108395	
Links to other subjects	Careers, Computing	Humanities	Citizenship, Env Ed, Horticulture		DT	PE, PHSE	DT, Careers	Careers, Geography	RE, PHSE

2025-2026



British Values  
Updated by Claire Boyd

September 2024

Science at Meadowside teaches pupils to develop an understanding of the world, its diversities, and how it works. Through Science, pupils develop and understanding of how seemingly unrelated things can be linked, and how different parts of the world rely on other parts to function. Science promotes the richness and celebrates the connectedness of the Earth and its inhabitants, and highlights the positive and negative impacts humans can have on each other and the environment. Learning about scientific laws, even in the simplest ways, can teach cause and effect and the concept of consequences. Acquisition of these knowledge and skills supports pupils to apply British Values, where the same principles are required, valued and necessary.