

Curriculum Outline 2023-24: **SCIENCE**

[This document summarises the content to be delivered over the course of the year. There will be some rotation of topics due to resourcing implications]

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	<u>Super Scientists</u> Forensic science Reliability of evidence <u>Statistics</u> Yr4 recap bar graphs Line graphs - interpretation	<u>Earth and Space</u> night and day shadows inner and outer planets creation vs big bang	<u>Forces</u> Gravity Air/Water resistance Magnetism	<u>Materials</u> Working scientifically Identifying patterns Pupil Led enquiry	<u>Life Cycles</u> Plant life cycles Flowering plants Animal life cycles Changes over time	<u>Science Fair</u> Independent enquiry Working Scientifically
LITERACY	Newspaper reports	Descriptive writing Apollo 13	Isaac Newton comprehension	Useless Object Persuasion	Anna's Apple Tree	Explanation writing
NUMERACY:	Statistics	Measurements	Two way tables; Units of time	MEAN WEEK Graphing Skills; the Mean	Metric Units	Two way Tables
SMSC/Creativity/ Careers Focus	Scientific Forensic Careers	Religious creation stories	Rube Goldberg Machines	Useless object Recycling	Biology Careers	Creating independent enquiries

Year 6	<u>Lab safety skills</u> Bunsen burner licence scientific drawing graph drawing	<u>Light</u> Reflection Shadows Misconceptions	<u>Marden Rainforest</u> Classification Food webs Habitats Adaptation and evolution;	<u>The Heart</u> Circulation Blood Veins, Arteries	<u>Electrical Circuits</u> Complete circuits Conductivity Circuit diagrams Current Voltage Resistance Electromagnetism
LITERACY	Method writing	The Torch	Descriptive writing Fantastic Beasts and where to find them	Explanation Writing	Hamish's Lighthouse
NUMERACY:	<u>MEAN WEEK</u> Line graphs	Angles Reflections	Pie charts Graphing	<u>MEAN WEEK</u> Mean average	Measurement conversions
SMSC/Creativity/ Careers Focus	Personal safety Lab technician careers	Designing investigations	Design a Beastie Adaptation/Speciation in cultural divides	Promoting Healthy Lifestyles	Electrical careers Wiring Plugs Electrical Safety

Year 7	<u>Energy</u> Energy Stores Energy Transfers Efficiency Energy in Food	<u>Forces</u> Compression/Tension Hooke's Law Pressure Moments	<u>Particles</u> Solids/Liquids/Gases Diffusion Gas Pressure Dissolving Separations Chromatography	<u>Chemical Reactions</u> Chemical vs Physical Combustion Word equations	<u>Cells and Reproduction</u> Tissues/Organs Specialised Cells Sexual reproduction Menstrual Cycle
Extended Literacy opportunities:	Renewable energy persuasion	Distance Time Stories	Instruction writing; Explanation writing	Poetry (Haiku)	Journey of a Sperm
NUMERACY:	Algebra: substitution, rearranging formula	Algebra Graph skills Interpolating/ extrapolating	Line graphs	Mean average Line graphs	Gestation periods and inferring from graphs
SMSC/Creativity/ Careers Focus	Sport Nutrition challenge Gas/Electric Bills Renewable Energy	Mechanical Engineering Careers	Scientific ideas changing over time	Chemistry Careers	Gender identity IVF eligibility

Year 8	<u>Periodic Table</u> Atomic structure Elements/Compounds Periodic table Reactivity	<u>Heating and Cooling</u> Conduction Convection Radiation Heat vs Temp	<u>Digestion and Respiration</u> Digestive system Nutrition Enzymes Gas Exchange	<u>Light and Sound</u> Waves Refraction Dispersal Eyes and Ears Speed of sound/light	<u>Photosynthesis</u> Leaf Structure Stomata Light intensity Chlorophyll	<u>DNA and inheritance</u> DNA structure Genetic inheritance Speciation
Extended Literacy opportunities:	Non-Chronological reports	Inference texts	Journey of a Cheese Sandwich	Discursive essay writing: Are the eye and the ear the same?	Poetry (Haiku)	Discursive Arguments Extended Debate
NUMERACY:	Mass/Weight	Introduction to Specific Heat capacity	Calorie/energy conversions	Mean average Angles	Line Graphs	Metric Conversions
SMSC/Creativity/ Careers Focus	Evolving (evidence based) belief systems	Heat loss and Global Warming Builders Window Fitters	Obesity/ Healthy Lifestyles Sports Careers	Sound safety etc	Global Warming Impact on Ecosystems	Ethics of Genetic Modification

