



“The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction.” **Rachel Carson**, world-renowned conservationist, marine biologist and author of ‘Silent Spring’.

Subject Head: Sylvia Bettington **Contact:** sbettington@farmors.gloucs.sch.uk

Our Science curriculum is designed to be stimulating and accessible to all. It aims to capture the enthusiasm and curiosity of students, motivating them to study Science further. Our lessons provide students with many opportunities to explore Science through a range of activities that allow them to continually develop key practical skills that will support their journey from Year 7 right through to A-level.

Students will encounter new knowledge, methods, processes and uses of Science and learn to appreciate how these affect them and the world around them.



Farmor's School Science Department



		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7		Introduction to Science Particles Forces Energy	Particles Energy Elements and Compounds Cells	Cells Elements and Compounds Body Systems Acids and Alkalis	Body Systems Acids and Alkalis Space Animal Reproduction	Space Plant Reproduction Animal Reproduction Using Chemistry	Plant Reproduction Animal Reproduction Using Chemistry
Year 8		Separating Mixtures Energy	Health and Drugs Electricity and Magnetism	Health and Drugs Electricity and Magnetism Metals	Metals Sound	Sound Ecosystems	Ecosystems Cycles
Year 9	Biology	Cell structure and Transport	Cell structure and Transport	Cell division	Cell division DNA and Evolution	DNA and Evolution Adaptations, Interdependence and Competition	Adaptations, Interdependence and Competition
	Chemistry	Atomic Structure	Atomic Structure	The Periodic Table	The Periodic Table	The Earth's Atmosphere	The Earth's Atmosphere
	Physics	Energy Transfer Conservation and Dissipation of Energy	Energy Transfer Conservation and Dissipation of Energy	Energy Resources	Energy Resources	Molecules and Matter	Molecules and Matter



Farmor's School Science Department



		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Biology	Cell Division Organisation and the Digestive System	Organisation and the Digestive System Organising Plants and Animals	Organising Plants and Animals Communicable Diseases	Preventing and Treating Disease Photosynthesis	Non-communicable Diseases Photosynthesis	Respiration Human Nervous System
	Chemistry	Structure and Bonding	Structure and Bonding Chemical Calculations	Chemical Calculations Chemical Changes	Chemical Changes Electrolysis	Electrolysis Energy Changes	Energy Changes Rates of Reaction
	Physics	Electrical Circuits	Electrical Circuits Electricity in the Home	Electricity in the Home Radioactivity	Radioactivity Forces in Balance	Forces in Balance Motion	Motion Force and Motion
Year 11	Biology	Human Nervous System Hormonal Communication	Hormonal Communication Genetics and Reproduction	Genetics and Reproduction Variation and Evolution	Variation and Evolution Genetics and Evolution	Organising an Ecosystem Biodiversity and Ecosystems	Revision
	Chemistry	Rates of Reaction	Crude Oil and Fuels	Chemical Analysis	The Earth's Resources	Revision	Revision
	Physics	Forces and Motion	Wave Properties	Electromagnetic Waves	Magnetism and Electromagnetism	Revision	Revision

GCSE exam board: AQA GCSE **Trilogy Combined Science** (8464)



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Cell Division Organisation and the Digestive System	Organisation and the Digestive System Organising Plants and Animals	Organising Plants and Animals Communicable Diseases	Preventing and Treating Disease Photosynthesis	Non-communicable Diseases Photosynthesis	Respiration Human Nervous System
Year 11	Human Nervous System Hormonal Communication	Hormonal Communication Homeostasis in Action Genetics and Reproduction	Genetics and Reproduction Variation and Evolution	Variation and Evolution Genetics and Evolution	Organising an Ecosystem Biodiversity and Ecosystems	Revision

GCSE exam board: AQA **GCSE Biology** (8461)



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Structure and Bonding	Structure and Bonding Chemical Calculations	Chemical Calculations Chemical Changes	Chemical Changes Electrolysis	Electrolysis Energy Changes	Energy Changes Rates of Reaction
Year 11	Rates of Reaction Crude Oil and Fuels	Crude Oil and Fuels Organic Reactions Polymers	Polymers Chemical Analysis	The Earth's Resources Using Our Resources	Revision	Revision

GCSE exam board: AQA **GCSE Chemistry** (8462)



Farmor's School Science Department



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Electrical Circuits	Electrical Circuits Electricity in the Home	Electricity in the Home Radioactivity	Radioactivity Forces in Balance	Forces in Balance Motion	Motion Force and Motion
Year 11	Force and Motion Force and Pressure	Force and Pressure Wave Properties	Electromagnetic Waves Light	Light Space	Revision	Revision

GCSE exam board: AQA **GCSE Physics** (8463)



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Exchange Surface and Breathing Cell Structure Transport in Animals Biological Membranes	Transport in Animals Biological Membranes Transport in Plants Cell Division, Cell Diversity and Cell Differentiation	Transport in Plants Biological Molecules Communicable Diseases	Biological Molecules Nucleic Acids Classification and Evolution	Enzymes Biodiversity	Year 13 course starts Respiration Communication and Homeostasis
Year 13	Respiration Communication and Homeostasis Excretion Photosynthesis Neuronal Communication	Photosynthesis Neuronal Communication and Hormonal Control Animal Responses Cellular Control	Plant Responses Patterns of Inheritance Cloning and Biotechnology	Patterns of Inheritance Cloning and Biotechnology Ecosystems Manipulating Genomes	Manipulating Genomes Population and Sustainability Revision	

A level exam board: OCR **Biology** A



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Atoms, Isotopes, Ions and Compounds Electrons and Bonding Amount of Substance Shapes of Molecules and Intermolecular Forces	Amount of Substance Shapes of Molecules and Intermolecular Forces Acids and Redox Reactions	Basic Concepts of Organic Chemistry Alkanes Alkenes Periodicity Reactivity Trends	Alkenes Alcohols Enthalpy Reaction Rates and Equilibrium	Alcohols Haloalkanes Organic Synthesis Reaction Rates and Equilibrium Spectroscopy	Organic Synthesis Spectroscopy
Year 13	Rates of Reaction Equilibrium Aromatic Chemistry Acids, Bases and pH	Acids, Bases and pH Enthalpy and Entropy Carbonyls and Carboxylic Acids	Amines, Amino Acids and Polymers Redox and Electrode Potentials Transition Elements	Transition Elements Chromatography and Spectroscopy	Revision	Revision

A level exam board: OCR **Chemistry A**



Farmor's School Science Department



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Particles and Nucleotides Introduction to Mechanics Motion and its Measurement	Motion and its Measurement Newton's Laws of Motion Fundamental Particles Electrons and Energy Levels	Newton's Laws of Motion Work, Energy and Power Particles of Light	Momentum Current Electricity	Properties of Materials Electrical Circuits	Waves Combining Waves
Year 13	Circular Motion Gravitation Simple Harmonic Motion Electric Fields	Simple Harmonic Motion Electric Fields Thermal Physics Magnetic Fields	Capacitance Magnetic Flux	Alternating Currents and Transformers The Evidence for the Nucleus Radioactive Decay	Nuclear Energy Astrophysics Revision	

A level exam board: AQA **Physics**