

Curriculum Intent: Pupils will leave Bloxwich Academy with a deepened scientific knowledge and the understanding of ideas developed over a spiral curriculum in the disciplines of biology, chemistry and physics.

Curriculum Rationale: We ensure our science curriculum enables pupils to be prepared for a wide range of careers building by knowledge in all three disciplines in order to apply the necessary skills. Opportunities for practical work are given throughout the course at all key stages.

What makes the Bloxwich experience unique: You will study three sciences and carry out practical work with opportunities for visits and talks from members in the scientific community.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Introduction to science, Cells, Particle model	Forces, Atoms and mixtures. Autumn assessment.	The Earth and beyond, Variation.	Electricity, Light. Spring assessment.	Energy cost and transfer, Interdependence.	Science skills and project, summer assessment.
8	Breathing and digestion, Chemical reactions, Sound.	Respiration and photosynthesis, Separating mixtures. Autumn assessment.	Contact forces and pressure, Acids and alkali's,	Evolution and inheritance, magnetism. Spring assessment.	Work, heating and cooling, Earth, Waves.	Science skills and project, summer assessment.
9	Contact forces and pressure, cells.	Cells, atomic structure.	Particle model	Fundamental reactions, electricity	Electricity, health	Planet Earth.
10	Organisation, Atomic structure, Bonding.	Organisation, Energy, Bonding.	Infections and response, quantitative chemistry, energy.	Infections and response, chemical changes, electricity.	Electricity, chemical changes, bioenergetics.	Forces, energy changes bioenergetics.
11	Homeostasis, rates of reaction, forces.	Inheritance, variation and evolution, organic chemistry, magnets.	Inheritance, variation and evolution, organic chemistry, waves.	Ecology, chemistry of the atmosphere using resources, chemical analysis.	Revision and exams	Exams.

Biology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
12	Cells and transport, biological molecules.	Cell recognition and immune response.	Nucleic acids and genes.	Exchange of gases, genetic diversity.	Biodiversity, energy and ecosystems.	Photosynthesis and respiration, populations and ecosystems.
13	Photosynthesis and respiration, energy and populations.	Response to stimuli, nervous system.	Inherited change and homeostasis.	Gene expression and homeostasis.	Homeostasis and revision.	Revision and exams.

Chemistry

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
12	Physical Chemistry	Physical and inorganic chemistry	Inorganic and organic chemistry	Inorganic and organic chemistry	Physical and organic chemistry	Physical and organic chemistry
13	Organic and physical chemistry	Organic and physical chemistry	Organic and physical chemistry	Physical and inorganic chemistry	Inorganic chemistry and revision	Revision and exams.

Physics

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
12	The atom, radioactivity electricity	The atom, radioactivity electricity	Forces and motion, waves and optics.	Forces and motion, waves and optics.	Forces and motion, mechanics and materials.	Revision and mocks
13	Further mechanics	Thermal physics	Gravitational fields and electric fields	Capacitors & Tuning points.	Turning points.	Revision and exams.