

Please use this Route Through to learn more about what students are learning in lessons, and how they can extend their learning at home. Please contact the Head of Department or Director of Year for more information.

Subject	What are students learning in lessons?	What could students do to extend their learning and develop their character?
Autumn Term 1	Cellular Respiration: aerobic respiration, anaerobic respiration. Magnetic Fields and Electromagnets: magnets, field lines, uses of electromagnets.	Be curious: research uses of electromagnets and create an information poster.
Autumn Term 2	Atoms and elements: atomic structure, structure and development of the periodic table. Trends in the periodic table. Waves: transverse vs longitudinal waves, ultrasound, microphones and loudspeakers.	Be curious: create a timeline showing when and how new elements have been discovered and added to the periodic table.
Spring Term 1	Health and Disease: effects of exercise on the body, pathogens and prevention of transmission of disease. Electricity: current and voltage, Ohms law and resistance, renewable vs non-renewable energy.	Be curious: create an infographic comparing renewable and non-renewable energy sources and explaining which you think should be used more in the future.
Spring Term 2	Reactivity and Rates: displacement, extracting metals using carbon, collision theory and uses of catalysts.	Be curious: investigate why catalytic converters are fitted to cars and create a page for a driver's handbook.
Summer Term 1	Matter: fluids, floating, forces in floating and sinking, pressure Ecosystems: biodiversity, environmental changes and sampling organisms.	Be curious: design a nature reserve to protect biodiversity. Create a map showing habitats and species.
Summer Term 2	Bioenergetics: photosynthesis in plants, respiration (aerobic and anaerobic) in humans, bacteria and yeast. Revision: revise all units and prepare for the end of year exams.	Be focused: create a comparison guide explaining photosynthesis, aerobic respiration and anaerobic respiration using diagrams and key facts.
How should I plan my time?	Assessment	Home Learning
	Students think hard and answer lots of questions every lesson. Students practice and get feedback on their work. Exam: Spring 1 and Summer 2	Character tasks and Sparx Science to continue the joy of learning beyond the classroom.