

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	Particles: changes of state and separating substances. Cells: microscopes, animal and plant cells, specialised cells. Organisation: cells, tissues, organs, organisms.	Be curious: research the development of the microscope and the types of microscopes that exist today.
Autumn Term 2	Organ Systems: digestive system, respiratory system, circulatory system and skeletal system. Chemical Changes: introduction to atoms, elements and chemical reactions.	Be curious: research chemical reactions you can do at home, what can you observe?
Spring Term 1	Fundamentals of physics: forces and their effects, energy stores and pathways. Revision: revise all units and prepare for the Science midyear exams.	Be curious: investigate these websites: "PhET forces and motion basics", "PhET Energy Skate Park". Be ambitious: revise for exams.
Spring Term 2	Sound: production of sound waves, how the pitch and loudness can change. Light: how light travels, colours and filters, reflection, refraction and absorption.	Be creative: complete two drawings of a photo. One as it would be seen in white light & one as it would be seen in red light.
Summer Term 1	Materials: polymers, composites and why materials are used in different situations and for different purposes. Life cycles: life cycles and human reproduction.	Be curious: combine play dough with couscous, what happens to the properties of the material when you change the ratios?
Summer Term 2	Life cycles: life cycles and human reproduction. Revision: revise all units and prepare for the end of year exams.	Be resilient: make a revision time table and stick to it! Learn the science question and answers for each topic.
<b>How should I plan my time?</b>	<b>Assessment</b>	<b>Home Learning</b>
	Students think hard and answer lots of questions every lesson. Students practice and get feedback on their work.  Exam: Spring 1 and Summer 2	Due every Thursday at 4pm: 1 hour Sparx Science