

Calendar	Topic	Assessment	Sequencing and Coherence <i>concepts - themes - skills</i>	Literacy <i>reading - vocabulary - oracy - writing</i>
Autumn Term – HT1	Y7 Working scientifically covering variables, drawing tables and graphs and calculating means P1 Forces including contact and non-contact forces, friction, weight and gravity	Educake quiz which is automatically marked and returned to students with corrections. Students are tested on the lesson objectives for this unit. Assessed in end of Autumn term synoptic test and through extended writing task for each unit.	Introduces variables and graph skills that can be integrated throughout year. Without a firm grasp of the topic of forces the students cannot fully explain why the particle model holds. (e.g particles in a solid remain in a fixed location due to the strong forces)	Working scientifically glossary is provided to students in their learning journey. Literacy - Describing graphs in pairs using key terminology P1 glossary is provided to students in their learning journey.
Autumn Term – HT2	C1 Particles covering matter, changing state and separating techniques P6 Space – including the solar system, stars, phases of the Moon and seasons	Assessed in end of Autumn term synoptic test and through extended writing task for each unit. Assessed in end of Autumn term synoptic test and through extended writing task for each unit.	C1 is taught prior to B1 cells in order for students to understand diffusion in and out of cells. Without a firm grasp of the particle model it would be impossible for the students to appreciate fully this function of a cell.	C1 glossary is provided to students in their learning journey. C1 – Think, pair, share to explain how to separate mixture using several techniques. Voice 21 task involving group discussion on what makes a substance a solid, liquid or gas. P6 glossary is provided to students in their learning journey. Oracy – Space presentation group task

Spring Term – HT 3	<p>P4 Energy covering energy stores, energy transfers, energy resources, conduction and convection</p> <p>C2 Atoms includes atoms, elements, the periodic table and naming compounds. This unit is completed after half term</p>	<p>Assessed in end of Spring term synoptic test and through extended writing task for each unit.</p> <p>Assessed in end of Spring term synoptic test and through extended writing task for each unit.</p>	<p>Respiration and photosynthesis both involve energy transfer so this unit needs to precede B4. Without an introduction to energy the students cannot fully appreciate chemical reactions (C3).</p> <p>C2 precedes C3. Without covering this unit the students cannot discuss what a chemical reaction is during C3</p>	<p>P4 glossary is provided to students in their learning journey.</p> <p>C2 glossary is provided to students in their learning journey.</p> <p>Oracy– top trumps task to group elements based on their properties</p> <p>Oracy - Voice 21 task involving group discussion on what makes a substance an element or compound.</p> <p>Oracy – bullseye activity describing the structure of atoms</p>
Spring Term – HT 4	<p>C2 Atoms (2nd half of unit)</p> <p>C3 Chemical reactions covering reactivity series, rusting and displacement reactions.</p>	<p>Assessed in end of Spring term synoptic test and through extended writing task for each unit.</p>	<p>C3 is studied prior to acids and alkalis so that neutralisation and chemical equations can be accessed. Studied prior to cells to allow the students to confidently explore of the role of the cytoplasm, chloroplasts, mitochondria.</p>	<p>C3 glossary is provided to students in their learning journey.</p> <p>Literacy – think, pair, share to construct reactivity series based on reactions observed</p>

<p>Summer Term – HT 5</p>	<p>B1 Living systems (cells) including plant and animal cells, diffusion and specialised cells</p> <p>B5 Reproduction covering menstrual cycle, birth, pregnancy and puberty (first ½ of unit)</p>	<p>Assessed in end of Summer term synoptic test and through extended writing task for each unit.</p>	<p>B1 provides understanding function of cell nucleus required to study fertilisation in B5 and Genetics in B3.</p> <p>We teach B5 prior to B3 as we believe pupils need a knowledge of human reproduction early in KS3 for personal as well as scientific reasons.</p>	<p>B1 glossary is provided to students in their learning journey.</p> <p>Oracy – bullseye activity describing how to use a microscope.</p> <p>Literacy – menstrual cycle extended writing task.</p>
<p>Summer Term – HT 6</p>	<p>B5 Reproduction covering menstrual cycle, birth, pregnancy and puberty (2nd ½ of unit)</p>	<p>Assessed in end of Summer term synoptic test and through extended writing task for each unit.</p>	<p>An understanding of organ systems is required via B1 before B2 can be delivered.</p>	<p>B5 glossary is provided to students in their learning journey.</p>