

Calendar	Topic	Assessment	Sequencing and Coherence <i>concepts - themes - skills</i>	Literacy <i>reading - vocabulary - oracy - writing</i>
Autumn Half Term 1 and 2	Y7 Working scientifically covering variables, drawing tables and graphs and calculating means	Teams quiz which is automatically marked and returned to students with corrections. Students are tested on the lesson objectives for this unit.	Introduces variables and graph skills that can be integrated throughout year.	Working scientifically glossary is provided to students in their learning journey. Literacy - Describing graphs in pairs using key terminology
	P1 Forces including contact and non-contact forces, friction, weight and gravity	Working Scientifically and P1 combined end of topic test composed of suitable level 1 and 2 GCSE questions. Pupils will be given next steps feedback to include further GCSE questions to address any areas of weakness indicated by assessment.	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)	P1 glossary is provided to students in their learning journey.
	C1 Particles covering matter, changing state and separating techniques P6 Space – including the solar system, stars, phases of the Moon and seasons	C1 Particles and P6 Space combined end of topic test composed of suitable level 1 and 2 GCSE questions. Pupils will be given next steps feedback to include further GCSE questions to address any areas of weakness indicated by assessment.	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. Literacy – Space presentation group task

Spring Half Term 3 and 4	P4 Energy covering energy stores, energy transfers, energy resources, conduction and convection	Assessment after C2 Atoms	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).	P4 glossary is provided to students in their learning journey.
	C2 Atoms includes atoms, elements, the periodic table and naming compounds. This unit is completed after half term	P4 Energy and C2 Atoms combined end of topic test composed of suitable level 1 and 2 GCSE questions. Pupils will be given next steps feedback to include further GCSE questions to address any areas of weakness indicated by assessment.	C2 precedes C3. Without covering this unit the students cannot discuss what a chemical reaction is during C3	C2 glossary is provided to students in their learning journey. Oracy– top trumps task to group elements based on their properties Oracy - Voice 21 task involving group discussion on what makes a substance an element or compound. Oracy – bullseye activity describing the structure of atoms
	C3 Chemical reactions covering reactivity series, rusting and displacement reactions.	Assessment after B1 Living Systems	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.	C3 glossary is provided to students in their learning journey. Literacy – think, pair, share to construct reactivity series based on reactions observed

Summer Half Term 5 and 6	B1 Living systems (cells) including plant and animal cells, diffusion and specialised cells	C3 Chemical Reactions and B1 Living Systems combined end of topic test composed of suitable level 1 and 2 GCSE questions. Pupils will be given next steps feedback to include further GCSE questions to address any areas of weakness indicated by assessment.	B1 provides understanding function of cell nucleus required to study fertilisation in B5 and Genetics in B3. 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.	B1 glossary is provided to students in their learning journey. Oracy – bullseye activity describing how to use a microscope. Literacy – menstrual cycle extended writing task.
	B5 Reproduction covering menstrual cycle, birth, pregnancy and puberty (2 nd ½ of unit) B2 Diet and health including digestion, malnutrition, obesity and enzymes.	B5 Reproduction and B2 Diet and health combined end of topic test composed of suitable level 1 and 2 GCSE questions. Pupils will be given next steps feedback to include further GCSE questions to address any areas of weakness indicated by assessment.	An understanding of organ systems is required via B1 before B2 can be delivered.	B5 glossary is provided to students in their learning journey. B2 glossary is provided to students in their learning journey. Literacy – ultra processed foods task