

2023/24 THE HAYLING COLLEGE- SCIENCE. YEAR 9

	AUTUMN TERM			SPRING TERM			SUMMER TERM	
TOPICS	FORCES AND PRESSURE	PHOTOSYNTHESIS & RESPIRATION	CELLS	ORGANISATION	ATOMS & THE PERIODIC TABLE	CHEMICAL BONDS	ENERGY	RESOURCES & ELECTRICITY
THE BIG QUESTION	Why don't earth movers sink ?	How do plants make their own food?	How do cells work?	How are living things organised?	What is the universe made of?	How do atoms bond?	What is energy?	How does electricity work?
ACQUIRED KNOWLEDGE Includes disciplinary (skills based) and substantive precise outcomes for each knowledge bloke. Alongside opportunities to explore SMSC related subjects when appropriate.	Illustrate how force can be a push pull or twist. Measure pressure and link to particles in different states.	Explore how the process of photosynthesis allows plants to produce glucose from CO ₂ and water using light energy.	Explore the differences between cells enables them to specialise from stem cells. Sequence how they grow and divide by mitosis, and model how materials are transported	Sequence the organs and their function within the digestive, respiratory and transpiration system	Identify sub-atomic structure, linked the periodic table and predict properties Understand the peer review development of the PT	Use theories of structure and bonding to explain the physical and chemical properties of materials	Describe the difference stores of energy using real world examples. Model how heat can be transferred and link the heat capacity of different materials.	Describe how sources of energy can be defined in terms of non/ renewable and evaluate their impact on the environment.
ASSESSMENT Formative assessments are accompanied by a question level analysis and teacher feedback. This is graded using our EDSM criteria and reported to parents termly.	forces and pressure end of topic formative assessment	photosynthesis end of topic formative assessment & Summative end of year exam	cells end of topic formative assessment	organisation end of topic formative assessment	atoms & the periodic table end of topic formative assessment	chemical bonds end of topic formative assessment	energy end of topic formative assessment	resources & electricity end of topic formative assessment & End of year summative assessment.
RECIPROCAL READING Each topic is accompanied by a set of key words and a reciprocal reading exercise.	How can we make engines last longer?	Can any animals photosynthesise?	Biology key terms:*	Biology key terms:*	Chemistry key terms:*	Chemistry key terms:*	Physics key terms:*	Physics key terms:*
HOMELEARNING Students are expected to study up to an hour each week	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.	Fortnightly SENECA tasks.

*Students will need to be members of the science resources google webpage to access these resources.