Year 10 Curriculum Overview [2021-2022]
Subject – Construction and the Built Environment

Autumn Term	Knowledge & Understanding			Literacy Skills Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	**Components** **[includes understanding of KEY concepts & subject specific vocab]**	**Formal Retrieval [if any]**			
HT1 and HT2 **Unit 5** **Exploring Carpentry and Joinery Principles and Techniques**	Tools	• Setting-out tools • Hand tools • Equipment • Fixings	• Use of tools	• Writing to inform. • Writing for an audience. • **Keywords**- manufacture, sustainability, principles, technique, synthetic, hazards.	• Planning • Risk-management • Team working • Numeracy • Independence • Presentation skills • Communication • ICT skills • Organising	• Final assessment based on portfolio work • Identify /outline / justify/ explain / evaluate the selection of tools and the safe use/storage.
	Glues	• Natural glue • Synthetic glue	• Use of glue			
	Materials	• Hardwood • Softwood • Man-made wood	• Properties of materials			
	Health and safety	• Risk assessment • Hazards • Control measures	• Risks and hazards			

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Spring Term	Knowledge & Understanding			Literacy Skills Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	**Components** **[includes understanding of KEY concepts & subject specific vocab]**	**Formal Retrieval [if any]**			
HT3 and HT4 **Unit 2** **Scientific and Mathematical Applications for Construction**	Effects of force	• Nature of forces/identifying forces • Effects of forces on materials • Hooke's law • Determining effect of forces	• Forces • Materials	• Writing to inform. • Writing for an audience. • **Keywords**- force, temperature, state, mathematical, scientific, materials.	• Planning • Numeracy • Independence • Presentation skills • Communication • ICT skills • Organising	• Final assessment based on portfolio work • Identify/ describe /discuss/evaluate the effects of force and temperature on different construction materials. • Plot / apply / solve / justify algebraic and graphical methods.
	Changes in temperature	• Changes in temperature • Scientific principles • Effects of temperature on materials	• Temperature • Materials			
	Algebraic and graphical methods	• Applications • Rearranging formulae • Solving equations • Plotting graphs • Accuracy of calculations	• Algebra • Graphs			
	Mensuration	• Areas • Volumes	• Area • Volume			
	Trigonometry	• Applications • Pythagoras • Relationships • Accuracy				

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	Composites	**Components** **[includes understanding of KEY concepts & subject specific vocab]**	**Formal Retrieval [if any]**			
HT5 and HT6 **Unit 1** **Construction Technology**	Performance requirements	• Strength and stability		• Writing. • Independent reading. • Comprehension • **Keywords**- Strength, stability, performance requirements, safety, sustainability, resistance.	• Planning • Independence • Presentation skills • Communication • ICT skills • Research	• Final examination – Year 11
	Fire resistance	• Materials • Compartments • Barriers				
	Thermal	• Purpose • Types • Location				
	Sound	• Purpose • Types • Location • Provision				
	Weather	• Purpose • Materials • Location				
	Sustainability	• Purpose • Methods • Materials				

	Low-rise construction	• Cavity wall • SIPS • Cross-wall • Timber framed construction				