Holland Park School | Year 9 Design and Technology

YEAR 9		Lamp Project Material: Manufactured
		Board/Polymers
Research and Design	Research	 Understanding contexts, users and purposes Identify and solve your own design problems Research the health and wellbeing, cultural, religious and socio-economic contexts of their intended users Consider additional factors such as ergonomics, anthropometrics
	Design	 Use 3D CAD to model, develop and present their ideas Use mathematical modelling to indicate likely performance before using physical materials and components, for instance when developing circuits or gearing systems
Technical Knowledge	Theory	 Making products work Use simple electronic circuits incorporating inputs and outputs Apply computing and use electronics to embed intelligence in products that respond to inputs TK 10 - make use of sensors to detect heat, light, sound and movement such as thermistors and light dependent resistors Understand the performance of structural elements to achieve functioning solutions
Make	Skills	Follow procedures for safety and understand the process of risk assessment
	Make	 Use a wider, more complex range of materials, components and ingredients, considering their properties Use a broad range of manufacturing techniques including handcraft skills and machinery to manufacture products precisely
Evaluate	Critical	 Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups How products can be developed considering the concept of 'cradle to grave' or 'cradle to cradle' Products through disassembly to determine how they are constructed and function

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Cross Curricular	Literacy	Opportunities for extended writing within Product Analysis, Evaluations, justifying decisions orally and through annotation. Writing a making diary. No excuse vocabulary: Component, Ergonomics, Input/Output Soldering, Solder
	Numeracy	Measuring and Calculations
	Other subjects	 Science – Simple circuits and electricity History – Design Movements SMSC - Using your imagination and creativity. Acknowledging advances in technology and appreciation for human achievement PSHE - Electronic literacy
Careers	Application analyst Application developer Cyber security analyst Data analyst Database administrator Forensic computer analyst Game designer Games developer	