

Key Stage 4	Curriculum Checkpoints: What do students know and what can they do?				
Design and Technology	Developing	Securing	Mastering	Excelling	Further guidance
Practical Skills	Students can use tools and machinery understanding the need of accuracy	Students can use tools and machinery with fair degree of accuracy and precision	Students can use tools and machinery with good accuracy and precision	Students can use tools and machinery with excellent accuracy and precision	NEA mark scheme
	Students can manufacture partially functioning products that only just perform as intended	Students can manufacture satisfactory functioning products as intended	Students can manufacture functioning products that generally perform as intended	Students can manufacture fully functioning products that perform as intended	NEA mark scheme
	Students are starting to understand materials and appropriate choices	Students have a satisfactory understanding of materials and can demonstrate appropriate choices with teacher support	Students have a good understanding of materials and can demonstrate appropriate choices with teacher reassurance	Students have an excellent understanding of materials and can demonstrate appropriate choices confidently	NEA mark scheme
	Students can produce a product	Students produce a satisfactory quality product	Students produce a good quality product	Students produce a high quality product	NEA mark scheme
	Students understand some processes of joining materials	Students understand a range of processes for joining materials	Students can join materials using a range of processes	Students can expertly join materials using a range of processes	In-Depth
Materials	Students can name some materials and key properties	Students can identify possible materials for a product based on some properties	Students can describe which materials are suitable for products based on their properties	Students can evaluate which materials are suitable for products based on their properties	Core/In-Depth
	Students can identify where materials come from	Students can explain where materials come from	Students can explain how certain materials are sourced	Students can describe in detail how certain materials are sourced	Core/In-Depth
	Students understand what a stock form is	Students can name a variety of stock forms	Students can describe a variety of stock forms	Students can describe a wide variety of stock forms and the advantages of their uses	Core/In-Depth
	Students can explain what a finish is	Students can name a variety of material finishes	Students can describe a variety of material finishes	Students can evaluate a wide variety of material finishes	Core/In-Depth
	Students can identify the different construction methods of materials	Students can explain the different construction methods of materials	Students can evaluate the different construction methods of materials	Students can critically evaluate the different construction methods of materials	In-Depth
Sustainability	Students can name some effects global production has on culture and people	Students can explain some effects global production has on culture and people	Students can discuss the effects global production has on culture and people	Students can clearly articulate the effects global production has on culture and people	Globalisation
	Students can consider some moral and ethical factors on manufacturing sales	Students can form some links from moral and ethical factors to manufacturing sales	Students can form links from moral and ethical factors to manufacturing sales	Students can form clear links from moral and ethical factors to manufacturing sales	
	Students can identify different types of energy	Students can explain the use of energy in manufacturing	Students can evaluate the use of energy in manufacturing	Students can critically evaluate the use of energy in manufacturing	
	Students can name different consumer rights	Students have some understanding of consumer rights and the legislation that affects products	Students have a good understanding of consumer rights and the legislation that affects products	Students have an excellent understanding of consumer rights and the legislation that affects products	Legislation and kitemarks
	Students can identify some sustainable ways of designing	Students demonstrate some understanding of how to design in a sustainable way	Students demonstrate a good understanding of how to design in a sustainable way	Students demonstrate an excellent understanding of how to design in a sustainable way	Technology push, market pull, the product lifecycle, planned obsolescence
Mechanisms and electronics	Students are developing skills to make simple calculations	Students can make simple calculations involving mechanical systems	Students can apply maths skills to make calculations involving mechanical systems	Students can apply maths skills to make calculations involving mechanical systems confidently	
	Students can name movement and some mechanical systems	Students can identify the use of movement in mechanical systems	Students can explain the use of movement in mechanical systems	Students can evaluate the use of movement in mechanical systems	
	Students can identify input and output components	Students can explain input and output in electrical products	Students can explain input, process, output and feedback in electronic products	Students can evaluate input, process, output and feedback in electronic products	
	Students can identify a range of programming processes	Students can explain a range of programming processes	Students can use a range of programming processes	Students have mastered a range of programming processes	System diagrams, circuit diagrams, flowcharts, microcontrollers