

High Tunstall College of Science Curriculum Intent

Subject: D&T Year: 10 R106



Topic: R106 - Product Analysis and Research

Design & Technology		Progress		
Topic	Key ideas	R	A	G
Product analysis and re-search.	I can identify different types of production techniques.			
	I can research the impact manufacturing processes on product design.			
	I can consider a products impact on its end of life.			
	I can analyse a product and how legislation impacts quality and safety.			
	I can use primary and secondary research to analyse a manufactured product.			
	I can research properties of materials and use graphs and tables to show my understanding.			
	I can analyse existing products using disassembly techniques.			

Lesson	Learning Focus	Assessment	Key Words
1-2	Pupils investigate production methods and apply them to the product they will analyse.	R106—LO1 Know how commercial production methods, quality and legislation impact on the design of products and components	One off, batch, mass. Automation, production.
3-4	Write up findings.		
5-6	Pupils to research different types of manufacturing processes and link them to the product they are analysing.	R106—LO1 Know how commercial production methods, quality and legislation impact on the design of products and components	Moulding, pressing, forming, material shaping (e.g. CNC applications, CAM), machining or finishing, assembly
7	Write up findings.		
8-9 10-11	Pupils to research the impact of end of life of a product. They will need to apply it to their own analysed product.	R106—LO2 Be able to re-search existing products	recycling materials, reusing components, safe disposal of toxic and hazardous materials
12-13 14	Pupils to research British standards and analyse how their product has been made to conform with legislation. Write up findings.	R106—LO2 Be able to re-search existing products	British Standards (BS), European Conformity (CE), Waste Electrical and Electronic Equipment Directive (WEEE), patents, copyright
15-16 17	Pupils to use primary and secondary research techniques to analyse their product. Write up findings.	R106—LO2 Be able to re-search existing products	primary research (e.g. physical analysis of products, questioning and surveying users), secondary research sources (e.g. internet and online sources, books, literature, manuals, images, drawings)
18-19 20-21	Pupils to use primary data to analyse their product. Write up findings.	R106—LO3 Be able to analyse an existing product through disassembly	charts/diagrams/tables, digital evidence or sketches/annotations
22-23 24-25	Pupils to dis-assemble their manufactured product and analyse it using all of their research they have done so far. Complete all write ups.	R106—LO3 Be able to analyse an existing product through disassembly	components (e.g. standard, special) and their functions, assembly methods (e.g. mounting, connections), materials, production methods, maintenance considerations