

D&T- YEAR 9



Topic	Head	Heart	Hand
Product Analysis	<ul style="list-style-type: none"> • Progress and consolidation from year 8 • Use of ACCESSFM revisit, a higher level of detail will be expected than in year 7 and 8. 	<ul style="list-style-type: none"> • I can use my experience of product analysis in years 7 and 8 to help me analyse unfamiliar products 	<ul style="list-style-type: none"> • I can use ACCESSFM to analyse a product in more depth than I did in year 7. • I can use internet research to compare and contrast 2 similar products.
Health and safety	<ul style="list-style-type: none"> • Know all the rules to keep me safe in the DT workshop 	<ul style="list-style-type: none"> • I can use my Common sense to work safely 	<ul style="list-style-type: none"> • I can work safely at all times with a still further increase in tool and equipment use
Materials	<ul style="list-style-type: none"> • Name and describe some properties of wood, metal and plastic • Know the metal groups Ferrous and non- ferrous • Know hard woods and soft woods • Know thermo and thermo setting plastics. 	<ul style="list-style-type: none"> • I can organise materials into their different categories 	<ul style="list-style-type: none"> • I can Research into the different material categories and chose materials for a particular purpose.

Wood joints	<ul style="list-style-type: none"> Identify Butt, lap, finger, dovetail, halving, mortice and tenon, dowel joints 	<ul style="list-style-type: none"> I can use my resilience to produce accurate and quality work I need to be organised to work safely 	<ul style="list-style-type: none"> I can make a quality halving joint with a high degree of accuracy
Design Movements	<p>revisit – identify work from the following design movements:</p> <ul style="list-style-type: none"> Art Deco, Art Nouveau and Modernism and learn about designers in those eras. Designers Alessi– Phillip Stark 	<ul style="list-style-type: none"> I can use my organisational skills and initiative to work independently 	<ul style="list-style-type: none"> I can recognise and describe the features of at least one design movement I can name a designer or engineer and describe what he/she is famous for
Environmental Issues	<ul style="list-style-type: none"> Know the 6R's of sustainability Understand the economic effects of climate change 	<ul style="list-style-type: none"> I can be organised and use my initiative to work independently 	<ul style="list-style-type: none"> I can apply the 6R's of sustainability to any product that I choose to design
Electronics	<ul style="list-style-type: none"> Know how a 555 timer astable circuit can be used to make an LED flash at different rates. Know the purpose of a capacitor and resistor in a timing circuit Know what an astable circuit can be used for 	<ul style="list-style-type: none"> I can use my resilience and initiative in a range of situations 	<ul style="list-style-type: none"> I can use circuit wizard software to vary the frequency of an astable circuit.

Clock Design	<ul style="list-style-type: none"> • Know how to analyse a design brief using ACCESSFM • Know how to produce a specification from the research I have collected • Know how to present design drawings using orthographic projection • Know how to use 2D design software 	<ul style="list-style-type: none"> • I can use my Initiative and resilience to ensure designs meet the needs of the client 	<ul style="list-style-type: none"> • I can apply my knowledge of materials, joints and designers to design my own clock
Clock manufacture	<ul style="list-style-type: none"> • Know how to mark out and make a square frame using a halving joint • Know how to export a design drawing from 2D Design to the laser cutter using a DXF file. • Know how to apply a varnish to give a professional finish 	<ul style="list-style-type: none"> • I can be resilient to produce quality work throughout 	<ul style="list-style-type: none"> • I can apply my manufacturing skills to produce a quality clock
Evaluation	<ul style="list-style-type: none"> • Know how to evaluate and analyse throughout the designing and manufacturing process 	<ul style="list-style-type: none"> • I can plan and organise my work to ensure it meets the needs of my client 	<ul style="list-style-type: none"> • I can produce a written evaluation which considers the needs of my client.