

Year 9 Design and Technology

In Year 9 Design and Technology, students will build on prior knowledge of tools, materials and processes to create products that are more complex. As students have opted for the subject, the level of demand for quality and design are much higher. In turn, this gives students more freedom in the product that they create. Students complete two projects and use homework to begin building knowledge for the GCSE examination they will sit in Year 11. The project work follows a similar pattern to that of the Non Examination Assessment (NEA) which also starts in Year 11.

Methods of deepening and securing knowledge:	
Retrieval practice	Students use retrieval of previous processes, rules, routines and knowledge of materials to design and make products. They may use machinery and equipment used in previous years, which also ensures students retrieve information learned in Year 7 and Year 8.
Elaboration	By creating products that link with real-life scenarios or by making something that will be commercially viable, students can link the learning to their own experiences and considerations based on their knowledge of their own lives. Students may design products for family members or use real-life clients. Students will also have to elaborate on ideas and give evidence linking with clients and research to justify their reasoning in picking an idea, developing it and then making it.
Concrete examples	Students will learn using concrete examples by experiencing the tools, materials and processes first hand.

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2	
Topic(s)	Speaker Project - Identifying clients - Researching existing products - Identifying requirements and creating a specification - Creating designs - Gathering feedback	Speaker Project - Creating 2D Design CAD Drawings and developing - Prototyping - Creating wooden 'body' for speaker housing - Electronics – Creating circuit boards - Assembling and finishing	Speaker Project - Finishing product - Quality checking, evaluating and testing - Gathering feedback - Evaluating the product and process - Self-evaluation	Body Adornment - Using Contexts to design products - Discussing ideas with peers and client - Creating designs for jewellery based on research of materials, tools and processes	Body Adornment - Creating unique products - Using metal processes and treatments - Creating products with more 'freedom' and less structure - Cutting, shaping and finishing jewellery	Body Adornment - Evaluating process - Gathering feedback from users and clients - Evaluating product against specification	

Assessment	- On-going research and design assessment		- End-of-project test			- End-of-project Test
CEIAG (<i>Careers that are linked to that topic</i>)	- Use of CAD in industry	- Electronics Industry – creating prototype circuits		- Metal Work	- Metal Heat Treatments - Bespoke Jewellery industry	

Homework:

In Year 9, students are given a strict schedule for homework. Using a Question Book and Revision Guide, students are to revise and answer GCSE exam-style questions. This is to give them a foundation for knowledge for theory sessions taught in Year 10 and 11 and to get students to practise the types of questions that they could be asked in their GCSE exam.