

Year 10 Design & Technology Curriculum Overview

Year 10	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	Basic skill recall and practice	Practical project 1.	Practical Project 2.	Practical Project 3.	Practical Project 3.	Begin NEA
Knowledge	Subject specialism Timber/Textiles	Core Technical principles Part 1.	Core Technical Principles Part 2.	Designing & Making	All Materials.	Investigate & analyse
Alive and British Values	We are resilient We are interdependent	We can research	We value ourselves	We can communicate	We are creative	We are organised
Assessment	End of unit test Practical grade	End of unit test Practical grade	End of unit test Practical grade	End of unit test	End of unit test Practical grade	Mock
Careers	Tailor Set design	Fashion designer Interior designer	Hat design carpenter	Pattern cutter illustrator	Footwear designer Visual merchandiser	Costume designer animator

How does Key Stage Four build on learning from Key Stage Three?:

Term one is a skills building exercise. Students are to recall previous learning from KS3 and use these as the foundation of their project. They will learn from improving skills and learning new more complex ones. This term is not about creating a product, just to build knowledge that can be applied in the future tasks.

Year 10	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	Unit 1: Preparing to cook. Health, hygiene and safety, using a wide range of equipment, function of ingredients, application of knowledge in the production of 6 dishes.	Unit 1: Preparing to cook. Health, hygiene and safety, using a wide range of equipment, function of ingredients, application of knowledge in the production of 6 dishes.	Unit 2: Understanding food. The main food groups; sources of food, seasonality, factors affecting food choices (social, environmental, cost and sensory), evaluating food products and application of ingredients in 6 products with a 2 course assessment included.	Unit 2: Understanding food. The main food groups; sources of food, seasonality, factors affecting food choices (social, environmental, cost and sensory), evaluating food products and application of ingredients in 6 products with a 2 course assessment included.	Unit 3: Exploring balanced diets. Externally assessed examination (written). Nutrients, individual dietary needs, adapting recipes and food diaries to meet the needs of individuals.	Unit 3: Exploring balanced diets. Externally assessed examination (written). Nutrients, individual dietary needs, adapting recipes and food diaries to meet the needs of individuals.
Knowledge	H&S, function of ingredients, cooking with safe practice.	Applying knowledge of equipment and cooking methods	Main food groups Food origins, seasonality, Food choices	Evaluating Sensory analysis	Nutrients Dietary needs	Adapting a recipe Food diaries
Alive and British Values	We are organised We are creative We are resilient	We are organised We can question	We value ourselves We are organised	We value diversity & Choice	We value justice & respect We are organised	We are interdependent We are organised
Assessment	6 dishes Unit tests	6 dishes Unit tests	2 Course practical Unit tests	2 Course practical Unit tests	Written Exam	Written exam
Careers	• food and beverage production, manufacturing,	•Food marketing	•nutrition qualifications, sports science,	•catering and hospitality,	•chef (apprenticeships)	•Industrial kitchens

- Unit 1, Unit 2 and Unit 4 are all internally assessed and make up 75% of the course.
- Unit 3 is an externally assessed examination (25%).
- The overall grade for the course will either be PASS, MERIT or DISTINCTION (assuming all of the criteria has been met).

Year 10 Engineering Curriculum Overview

Year 10	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	Understanding Engineering drawings: Paper based /CAD Isometric & ortho Basic tools for marking / making/ shaping etc: Introduction to planning/ evaluation	Planning & Sequencing Contingency planning H&S and Risk Assessments Use of manual machinery: Centre Lathe Hot metal processes: Brazing/ soldering Product disassembly and analysis Developing Sketching skills and techniques	CNC Machining techniques, CNC Lathe, CNC Milling Machine (batch production cells)	Modelling (breadboarding) and electronic circuit construction (team working) PCB manufacturing	Trial Unit 1 (making) task based on previous exam board release	Trial Unit 2 (designing) task based on previous exam board release
Knowledge	Engineering achievements Material Properties (Focus bicycle components) Material testing (destr'/ non destr') Material categories Environmental issues	Understanding and producing engineering drawings Mechanical design, Focus: theme parks Electronic design, Focus: mobile phones	Calculations and Mathematical Techniques •Area & Volume •Ohms law •Datums, scale •units	Understanding methods of preparation, forming, joining and finishing of engineering materials	Electronic design, Focus: mobile phones	Electronic design, Focus: mobile phones
Alive and British Values	We are resilient	We are organised	We can contribute	We are interdependent	We can communicate	We are creative
Assessment	Use of tools /equipment, practical outcomes Hand / CAD drawing skills	Independent planning of making tasks Production of engineering drawings	Making components in quantity, precision. Contribution to teamwork Engineering Maths tasks	Understanding of electronic components circuit diagrams and circuit operation	Assessment of trial Unit 1 outcome	Assessment of trial Unit 2 outcome
Careers	This course will support progression into a wide range of engineering and associated sectors, especially advanced apprenticeships					

Year 11	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	Identifying & Investigating design possibilities	Generating design ideas	Development of design prototypes	Completion of product and evaluation	Revision skills	
Knowledge	Writing a brief & specification NEA	Subject specialism Timber/Textiles NEA	Core Technical principles Part 3 NEA	Core Technical Principles Part 4 NEA	Past papers Exam questions	
Alive and British Values	Students have a choice of 17 designers to research a minimum of two – these range from British to a variety of cultures. le: Vivienne Westwood & Ettore Sottsass Students have a choice of 8 diverse companies to research a minimum of two. le;Dyson & Apple	We are organised We are interdependent We value diversity and choice We can Research	We are organised We can question We can contribute	We are organised We are creative We are resilient We are interdependent We Value ourselves We can Communicate	We are organised We are resilient We are interdependent We Value ourselves We can Communicate	
Assessment	NEA grade Theory test	Mock NEA grade Theory test	NEA grade Theory test	Mock NEA grade Theory test	NEA grade Theory test	
Careers	Textile technologist	Vehicle designer	Packaging design	teacher	Model maker	

How will studying this subject in Key Stage Four help students to make their unique contribution to the world?:

The course creates students that are able to work independently and solve problems. It lets them see the world full of opportunities.

Year 11 Food Preparation & Nutrition Curriculum Overview

Year 11	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	NEA 1	NEA 1	NEA 2	NEA 2	Theory & Revision	
Knowledge	15000-2000 word report related to a hypothesis to include practical investigations using charts, graphs & diagrams.	15000-2000 word report related to a hypothesis to include practical investigations using charts, graphs & diagrams.	Prepare, cook and present a final menu of three dishes to meet the needs of a specific context within 3 hours	Prepare, cook and present a final menu of three dishes to meet the needs of a specific context within 3 hours	Past papers Revision topics from all areas	
Alive and British Values	We are organised We are creative We are resilient	We are organised We are creative We are resilient	We are organised We are creative We are resilient We are interdependent We Value ourselves We can Communicate We can Research	We are organised We are creative We are resilient We are interdependent We Value ourselves We can Communicate We can Research	We are organised We interdependent We are resilient	
Assessment	Uni test NEA	Uni test NEA	Uni test NEA	Uni test NEA	Past papers	
Careers	Cruise ships	Fast food	Pubs & bars	takeaways	Armed forces, hospitals, prisons	

The course builds on skills learnt throughout KS3 to be able to design and make dishes suitable for a variety of dietary needs. This will give them an understanding of a future within the hospitality and catering industry, food science and nutrition.

Year 11 Engineering Curriculum Overview

Year 11	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	Unit 1 (making) assessment Sequencing and Planning	Unit 1 (making) assessment Using tools and equipment (As per the examboard product release)	Unit 2 Assessment Researching and designing	Unit 2 Assessment Engineering drawing and evaluation	Unit 3 exam preparation	Unit 3 exam preparation
Knowledge	Independently impleme nting Unit 1 learning from Year 10	Independently implementing Unit 1 learning from Year 10	Independently implementing Unit 2 learning from Year 10	Independently implementing Unit 2 learning from Year 10	Revision of core content from Unit 3	Revision of core content from Unit 3
Alive and British Values	We are organised	We are resilient	We are creative	We can communicate	We can question We can research	We can question We can research
Assessment	Formal assessment of Unit 1	Formal assessment of Unit 1	Formal assessment of Unit 2	Formal assessment of Unit 2	Exam style questions	Exam style questions
Careers	This course will support progression into a wide range of engineering and associated sectors, especially advanced apprenticeships					

How does Key Stage Four build on learning from Key Stage Three?: Engineering draws on a wide range of skills both in designing and making, learnt and developed at KS3. Including CAD/CAM, graphical and Technical drawing techniques (e.g. Isometric) Electronics and use of a wide range of tools and equipment