Design Technology

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Our Curriculum Statement:

"Within the disciplines of Design and Technology we aim to provide an underpinning of all curriculum areas encouraging independence leading to successful Global Citizens"

Graphic Communication Textiles Food and Nutrition

Analytical writing, evaluative writing, descriptive writing, instructive language. Measuring and weighing, proportion and graphs, analysis of data, volume, materials analysis, the work of other designers (historical context). Science of food, material properties.

IT development of ideas, presenting work, research and analysis, CAD CAM.

Self-directed learning, independent outcomes, individual outcomes, teacher self and peer evaluation.

Designing and the environment, ethical decisions, food providence, finite and non-finite resources, cultural respect, food and packaging legislation and sustainability.

Design and Technology 5 Year Curriculum Plan 2023

	Design a	and Technology Curriculum Plan		
Year	Textiles	Graphic Products	Product Design	Food Tech
7	 Key terminology Recording ideas Initial ideas Developing ideas Presenting ideas 	 Key terminology Recording ideas Initial ideas Developing ideas Presenting ideas 	 Key terminology Existing Products Material properties Initial ideas Developing ideas Presenting ideas 	 Key terminology Food Science Food Provenance Developing ideas Modelling and processing food
	About this project The 9-week project is a design and make project. Students will develop skills of fabric construction. Knowledge gained – fabric construction and application of materials. Working with a range of textile materials and techniques. Key terminology is covered through the use	About this project The 9-week project is a design and make project. Students are challenged to design and make a promotional standee advertising a new chocolate bar. Knowledge gained – card construction and application of materials. Working with simple card construction analytical skills – form and function of key materials.	About this project The 9-week project is a design and make project. Students are challenged to design and make a powered boat out of pine. Knowledge gained – knowledge of resistant materials. Working with pine– form and function of key materials. Sustainability. Material origins.	About this project The 9-week project is a design and make project. Students are challenged to design and make a range of snacks using a range of skills and equipment. Knowledge gained – developing skills in food preparation and cooking methods. Working with a range of ingredients to make a range of outcomes.
	of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words and key design concepts all linking to GCSE design criteria. Recording ideas is covered throughout the design and make process where students are asked to record their findings, observations and insights based on their own work and the work of others. Tasks; • Analysis of the work of others	Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words and key design concepts all linking to GCSE design criteria. Recording ideas is covered throughout the design and make process where students are asked to record their findings, observations and insights based on their own work and the work of others.	Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words and key design concepts all linking to GCSE design criteria. Recording ideas is covered throughout the design and make process where students are asked to record their findings, observations and insights based on their own work and the work of others.	Key terminology is covered through the use of knowledge books which are designed to track and support students through a range of practical and theory based tasks. Knowledge covers key words, investigation of ingredients and cooking methods supporting the GCSE design and make criteria. Students develop their understanding of ingredients to make a range of snacks. Students assess the quality of their own work and the work of others through organoleptic testing and star diagrams.

Annotation of design ideas			
 Evaluation of design ideas 	Tasks;	Tasks;	Tasks
	 Analysis of the work of others 	Analysis of the work of others	Use food hygiene, health and
Initial ideas are recorded as the first	 Annotation of design ideas 	 Annotation of design ideas 	safety rules
response to the design challenge.	 Evaluation of design ideas 	 Evaluation of design ideas 	 Investigate ingredients, materials
Students are asked to create a range of			and cooking methods
design ideas which will be taken into design	Initial ideas are recorded as the first	Initial ideas are recorded as the first	Design and annotate food
development at a later stage.	response to the design challenge.	response to the design challenge.	packaging
	Students are asked to create a range of	Students are asked to create a range	Evaluate food products
Developing ideas is carried out through the	design ideas which will be taken into	of design ideas which will be taken into	
refinement and development of initial design	design development at a later stage.	design development and making at a	Students begin to develop an understanding
ideas.		later stage.	of food hygiene, personal hygiene and
Developments are recorded using detailed	Developing ideas is carried out through		working safely when preparing and handling
annotation.	the refinement and development of initial	Developing ideas is carried out through	food.
	design ideas.	the refinement and development of	
Present – students are expected to make a high quality outcome. The outcome is	Developments are recorded using detailed	initial design ideas including modelling	Students are asked to create a selection of
assessed against design criteria.	annotation.	of ideas.	hand held snacks which demonstrate and
assessed against design chiena.	Present – students are expected to make	Developments are recorded using detailed annotation.	develop a range of skills and understanding
LEARNING OVERVIEW	a high quality outcome. The outcome is		of food commodities.
	assessed against design criteria.	Present – students are expected to	Students are expected to make a range of
Materials covered	assessed against design entena.	make a high quality outcome. The	high quality outcomes. The outcomes are
Calico	LEARNING OVERVIEW	outcome is assessed against design	assessed against the design criteria.
		criteria delivered at the start of each	
Designing principles	Materials covered	project.	LEARNING OVERVIEW
Generating design ideas	Carton card		Materials covered
 Developing design ideas 	PVA glue	LEARNING OVERVIEW	A wide range of food products and
 Recording observations 	Acetate		ingredients
The work of other designers		Materials covered	A range of hand tools and cooking
Ŭ	Designing principles	Pine	appliances.
Practical skills covered	 Generating design ideas 	Woodglue	
 Use of dyes 	 Developing design ideas 	Dowel	Design principles
Batik	 Recording observations 		 Investigating making and food
Machine sewing	The work of other designers	Designing principles	preparation skills.
Embroidery		Generating design ideas	Generating designs
Pattern cutting	Practical skills covered	Developing design ideas	Developing ideas
Applique	 Cutting and shaping card 	Recording observations	Recording evaluations
Health and safety	 Working with surface 	The work of other designers	Described all the same
	developments (Nets)		Practical skills covered
	 Card joining techniques 	Practical skills covered	 Bridge and claw grip (knife skills)

		 Using a craft knife Health and safety 	 Cutting and shaping materials Working tools Wood joining techniques Using machinery Health and safety Working with pine 	 Baking (oven use) The melting method (hob use) The rubbing in method (pastry) Bread making (kneading, proving and knocking back.)
	Assessment Assessment will be summative assessment based on a combination of an end of project assessment and theory and practical work completed in lessons.	Assessment Assessment will be summative assessment based on a combination of an end of project assessment and theory and practical work completed in lessons.	Assessment Assessment will be summative assessment based on a combination of an end of project assessment and theory and practical work completed in lessons.	Assessment Assessment will be summative assessment based on a combination of an end of project assessment and theory and practical work completed in lessons.
8	 Key terminology Recording ideas Initial ideas Developing ideas Presenting ideas 	 Key terminology Recording ideas Initial ideas Developing ideas Presenting ideas 	 Key terminology Existing Products Material properties Initial ideas Developing ideas Presenting ideas 	 Key terminology Food Science Food Provenance Developing ideas Modelling and processing food
	 About this project The 9-week project is a design and make project. Students will create a range of surface pattern ideas. This will produce a decorative outcome showing a range of 9 textile based skills. Knowledge gained – fabric construction and application of materials. Working with a range of textile materials and techniques including print and pattern design. Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers 	About this project The 9-week project is a design and make project. Students are challenged to design and make a popcorn box will be used to promote a soon to be released film. Knowledge gained – card construction and application of materials. Working with simple card construction. Working with surface developments. Developing ideas using ICT. Analytical skills – form and function of key materials. Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks.	About this project The 9-week project is a design and make project. Students are challenged to design and make a kit racing car. Knowledge gained – knowledge of resistant materials. Knowledge od tools and their uses. Working with pine and plywood– form and function of key materials. Measuring and proportion Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words	About this project The 9-week project is a design and make project. Students are challenged to design and make a range of meals designed to improve ingredients knowledge. Knowledge gained – developing skills in food preparation and cooking methods. Working with a range of ingredients to make a range of meals. Knowledge of food processes. Knowledge of equipment used in Food Technology. Key terminology is covered through the use of knowledge books which are designed to track and support students through a range of practical and theory based tasks.

key words and key design concepts all linking to GCSE design criteria.	Knowledge covers key words and key design concepts all linking to GCSE	and key design concepts all linking to GCSE design criteria.	Knowledge covers key words, investigation of ingredients and cooking methods
Description interaction of the such such that	design criteria.	Description to a second dimension of the	supporting the GCSE design and make
Recording ideas is covered throughout the	Description (description and the second description)	Recording ideas is covered throughout	criteria.
design and make process where students	Recording ideas is covered throughout the	the design and make process where	- Otudante develop their understanding of
are asked to record their findings,	design and make process where students	students are asked to record their	Students develop their understanding of
observations and insights based on their own work and the work of others.	are asked to record their findings,	findings, observations and insights based on their own work and the work	ingredients to make a range of meals.
own work and the work of others.	observations and insights based on their own work and the work of others.	of others.	Students assess the quality of their own
Tasks;	OWIT WORK AND THE WORK OF OTHERS.	or others.	work and the work of others through
	Tasks;	Tasks;	organoleptic testing and star diagrams.
Analysis of the work of others	Annotation of design ideas	 Analysis of the work of others 	Tasks;
Annotation of design ideas	• • • • • • • • • • • • • • • • • • •		 Practice food hygiene, health and
Evaluation of design ideas	Evaluation of design ideas	Annotation of design ideas	safety
Initial ideas are recorded as the first	Initial ideas are recorded as the first	Evaluation of design ideas	 Investigate ingredients, materials
response to the design challenge.	response to the design challenge.	Initial ideas are recorded as the first	and cooking methods
Students are asked to create a range of	Students are asked to create a range of	response to the design challenge.	 Investigate the cultural identity of
design ideas which will be taken into design	design ideas which will be taken into	Students are asked to create a range	foods
development at a later stage.	design development at a later stage.	of design ideas which will be taken into	 Design and annotate food
development at a later stage.	doligh dovolopment at a later stage.	design development and making at a	packaging
Developing ideas is carried out through the	Developing ideas is carried out through	later stage.	 Evaluate food products
refinement and development of initial design	the refinement and development of initial		
ideas.	design ideas.	Developing ideas is carried out through	Students continue to develop an
Developments are recorded using detailed	Developments are recorded using detailed	the refinement and development of	understanding of food hygiene, personal
annotation.	annotation.	initial design ideas including modelling	hygiene and working safely when preparing
		of ideas.	and handling food.
Present – students are expected to make a	Present – students are expected to make	Developments are recorded using	3 1 1 1 1 1 1 1 1 1 1
high quality outcome. The outcome is	a high quality outcome. The outcome is	detailed annotation.	Students are asked to create a selection of
assessed against design criteria.	assessed against design criteria.		meals which demonstrate and develop a
		Present – students are expected to	range of skills and understanding of food
LEARNING OVERVIEW	LEARNING OVERVIEW	make a high quality outcome. The	commodities, food provenance and
		outcome is assessed against design	nutritional improvements.
Materials covered	Materials covered	criteria delivered at the start of each	
Calico	Carton card	project.	Students are expected to make a range of
Stuffing	PVA glue		high quality meals asses against a design
Rice		LEARNING OVERVIEW	criteria.
	Designing principles	Meteriale envered	
Designing principles	Understanding the wants of the	Materials covered	LEARNING OVERVIEW
Generating design ideas	customer	Plywood	Materials covered
 Developing design ideas 	Producing a promotional item	Pine	A wide range of food products and ingredients

 Recording observations The work of other designers Practical skills covered; Pattern cutting Pattern design Block printing Transfer printing Health and safety 	 Generating design ideas Developing design ideas Recording observations The work of other designers Practical skills covered Cutting and shaping card Working with complex surface developments (Nets) Laser cutting final outcomes Card joining techniques Developing ideas using ICT (Illustrator) Using a craft knife Health and safety 	 Designing principles Generating design ideas Developing design ideas Recording observations Quality control Practical skills covered Cutting and shaping materials Working with surface developments (CAD) The use of CAD Health and safety Working with pine and plywood Measuring Assessment Assessment will be summative 	 A range of hand tools and cooking appliances. Design principles Investigating making and food preparation skills. Understanding the function of ingredients Generating design processes Developing modelled ideas Recording evaluations Practical skills covered Mashing and grating (cheesy mash) Gelatinization (macaroni cheese) Stir fry (hob use) The rubbing in method (crumble) The all in one method (muffins) Sensory analysis
Assessment	Assessment	assessment based on a	
Assessment will be summative	Assessment will be summative assessment based on a combination	combination of an end of project assessment and theory and	Assessment Assessment will be summative
assessment based on a combination of an end of project assessment and	of an end of project assessment and	practical work completed in	assessment based on a combination of
theory and practical work completed in	theory and practical work completed	lessons.	an end of project assessment and
lessons.	in lessons.		theory and practical work completed in lessons.
	Product design project 2	Product design Project 1	Food Technology
Students will opt to continue with	Key terminology Becording ideas	Key terminology Becording ideas	Key terminology Food Science
Food Technology or product design in Year 9	Recording ideasInitial ideas	Recording ideasInitial ideas	Food Science Food Provenance
	Developing ideas	Developing ideas	Developing ideas
	Presenting ideas	Presenting ideas	 Modelling and processing
Rationale for 2 option disciplines in Year	About this project	About this project	About this project
9 Uptake of textiles in at KS4 has declined	The 9-week project is a design and make project.	The 9-week project is a design and make project.	The 19-week project is a design and make project investigating the function of
over the last 3 years.	Students are expected to design a contemporary acrylic clock.	Students are expected to and make a functional LED lamp using recycled materials.	ingredients. Students will go onto

The aim is to teach key textile skills at KS3 which will be useful for students wishing to continue Design Technology. Long term goal is to reintroduce textiles at KS4 after a strong KS3 foundation has been built.	Knowledge gained – designing for a specific design brief with strict material limitations. Material properties and investigation. Form and function of key 	 Knowledge gained – complex and demanding card construction and application of a variety of materials. Working with a variety of materials as well as developing designing and making skills. Construction analytical skills – form and function of key materials. Key terminology is covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words and key design concepts all linking to GCSE design criteria. Recording ideas is covered throughout the design and make process where students are asked to record their findings, observations and insights based on their own work and the work of others. Tasks; Analysis of the work of others Evaluation of design ideas Developing design challenge. Students are asked to create a range of design ideas which will be taken into design development at a later stage. Developing ideas is carried out through the refinement and development of 	research and make a self-directed meal following the GCSE criteria. Knowledge gained – specific understanding of the scientific processes of a range of food products. Application of a variety of food materials to make a range of food products. Key terminology and processes covered through the use of knowledge books which are designed to track and support students through a logical design and make tasks. Knowledge covers key words and key design concepts all linking to GCSE design criteria. Students develop their understanding of ingredients to make a range of dishes which investigate the function of food ingredients. Students assess the quality of their own work and the work of others through organoleptic testing and star diagrams. Tasks; Practice food hygiene, health and safety Analysis of ingredients, materials and cooking methods Investigating the provenance of food Evaluate food products Planning food dishes Students understand aspects relating to food hygiene, personal hygiene and working safely when preparing and handling food.
	Present – students are expected to make a high quality outcome. The outcome is assessed against design criteria.	the refinement and development of initial design ideas.	Students are asked to create a selection of dishes which demonstrate and develop a

LEARNING OVERVIEW

Materials covered

- Acrylic
- Pine

Designing principles

- Generating design ideas
- Presenting ideas to a client
- Developing design ideas
- Recording observations
- The work of other designers

Practical skills covered

- Cutting and shaping card
- Working with surface developments (Nets)
- Card joining techniques
- Using a craft knife
- CAD/CAM

Assessment

in lessons.

Health and safety

Assessment will be summative

assessment based on a combination

of an end of project assessment and

theory and practical work completed

detailed annotation.

Present – students are expected to make a high quality outcome. The outcome is assessed against design criteria.

Developments are recorded using

LEARNING OVERVIEW

Materials covered

- Plywood
- Pine
- PVA glue
- Tin
- Pine

Designing principles

- Generating design ideas
- Presenting ideas to a client
- Developing design ideas
- Recording observations
- The work of other designers

Practical skills covered

- Cutting and shaping materials
- Working with surface
- developments (Nets)
- Wood joining techniques
- Using a craft knife
- CAD/CAM
- Health and safety

Assessment

Assessment will be summative assessment based on a combination of an end of project range of skills and understanding of food commodities, food provenance and nutritional improvements. Create a selfdirected product.

Students are expected to make a range of high quality, high skill dishes assed against a design criteria.

LEARNING OVERVIEW Materials covered

- A wide range of food products and ingredients
- A range of hand tools and cooking appliances.

Design principles

- Investigating making and food preparation skills.
- Generating time and production plans
- Developing modelled ideas
- Recording evaluations with star diagrams

Practical skills covered

- The whisking method and mechanical raising agent (Swiss roll)
- The rubbing in method and chemical raising agents (scones)
- Biological raising agent (bread / Chelsea bun)
- The function of eggs- coagulation enrobing and aeration (choux pastry and quiche)
- The function of fats- pastry investigation rough puff and short crust pastry.

	assessment and theory and practical work completed in lessons.	 Dairy products, gels and modified starches. (cheesecake) Protein and vegetable preparation (vegetarian alternative or meat based lasagne) Sensory analysis Assessment Mill be summative assessment based on a combination of an end of project assessment and theory and practical work completed in lessons.
	AQA Design	WJEC
10	Technology	Level 1/2 Hospitality and
	 Subject content 1. Core technical principles 2. Specialist technical principles 3. Designing and making principles Design and make portfolio. 	Catering The Hospitality and Catering Industry – Paper based assessment Hospitality and Catering in Action
11	Assessments What's assessed.	Year 11
	 Core technical principles Specialist technical principles Designing and making principles 	Year 11 will begin to study Unit 1 for the written exam paper. Investigating and demonstrating an understanding of the catering and hospitality trade. Students will ensure they have covered the industrial practices and operations of a catering establishment.

Section A – Core technical principles (20 marks) A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding. Section B – Specialist technical principles (30 marks) Several short answer questions (2–5 marks) and one extended response to assess a more in-depth knowledge of technical principles. Section C – Designing and making principles (50 marks) Non-exam assessment (NEA): 30–35	Project content will be taught through a project set by the exam board entitled "wow restaurant" Unit 1 Investigating aspects of the vocational sector. Modules; 1. Health and safety 2. Nutrition 3. Environmental factors 4. Hospitality trade 5. The workforce Unit 2 To investigates the coursework contents and design and create a three course meal suitable for a professional restaurant,
 hours approx 100 marks 50% of GCSE Task(s) Substantial design and make task Assessment criteria: Identifying and investigating design possibilities Producing a design brief and specification Generating design ideas Developing design ideas 	

	 Realising design ideas Analysing & evaluating In the spirit of the iterative design process, the above should be awarded holistically where they take place and not in a linear manner Contextual challenges to be released annually by AQA on 1 June in the year prior to the submission of the NEA Students will produce a prototype and a portfolio of evidence Work will be marked by teachers and moderated by AQA
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