

DESIGN TECHNOLOGY Year 9 Curriculum End Points and Key Vocabulary

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
	Milton Keynes – Looking	Milton Keynes - Ethical	Milton Keynes -	Milton Keynes - Using	Milton Keynes -	Milton Keynes –
	at where we can see	local suppliers of	Ethical local suppliers	the MK landscape of	Using the MK	Looking at where we
	examples of different	materials, food Waste in	of materials, choosing	inspiration in design,	landscape of	can see examples of
	cultures through textiles	MK. Where to buy food	local materials, food	food Waste in MK.	inspiration in design,	different cultures
	in MK and Watling	with less packaging.	Waste in MK. Where	Where to buy food	food Waste in MK.	through textiles in
	Academy.	Links to MK Eat Street.	to buy food with less	with less packaging.	Where to buy food	MK and Watling
	Links to local recycling	STEM - Food hygiene	packaging. Links to	STEM – electronic	with less packaging.	Academy.
	plants and scrap store	and the scientific	MK Eat Street.	circuits, food hygiene	STEM –engineering	Links to local
	for recycling plastics.	characteristics and	STEM –	and the scientific	and modelling	recycling plants and
	Looking at food waste in	nutritional value of	Understanding	characteristics and	solutions to problems	scrap store for
	Mk and where to buy	ingredients.	ergonomics and	nutritional value of	food hygiene and the	recycling plastics.
	food with less packaging.	Experimental	anthropometrics food	ingredients.	scientific	Looking at food
	STEM - Structure and	development tasks.	hygiene and the	Experimental	characteristics and	waste in Mk and
	properties of different	Engineering solutions to	scientific	development tasks.	nutritional value of	where to buy food
	materials, geometry in	problems.	characteristics and	Engineering solutions	ingredients.	with less packaging.
Ethos Links	design, function of	Sustainability - Food	nutritional value of	to a lighting problem.	Experimental	STEM - structure
	ingredients, careers	provenance, food miles,	ingredients.	Sustainability - food	development tasks	and properties of
	links.	food waste. Use of	Experimental	provenance, food	Sustainability - food	different materials,
	<u>Character</u> – Working as	different materials,	development tasks.	miles, food waste. Use	provenance, food	geometry in design,
	part of a design team,	designing with the 6Rs in	Engineering solutions	of different materials,	miles, food waste.	function of
	peer feedback, using	mind.	to a lighting problem.	designing with the 6Rs	Designing with the	ingredients, careers
	shared equipment.	<u>Character</u> – Working as	Combining materials.	in mind	6Rs in mind	links.
	Sustainability - Looking	part of a design team,	<u>Sustainability</u> - Food	<u>Character</u> – Designing	<u>Character</u> – Designing	<u>Character</u> – Working
	at the origins of different	peer feedback, using	provenance, food	with the needs of	with the needs of	as part of a design
	fabrics and fibres and	shared equipment.	miles, food waste. Use	others in mind, peer	others in mind, peer	team, peer
	their impact on the		of different materials,	feedback, using shared	feedback, using	feedback, using
	environment, dying		designing with the 6Rs	equipment.	shared equipment.	shared equipment.
	processes. Ocean plastic		in mind.			Sustainability -
	problems, food miles,		<u>Character</u> – Designing			Looking at the
	food waste and food		with the needs of			origins of different
	providence.		others in mind, peer			fabrics and fibres

			feedback, using			and their impact on
			shared equipment.			the environment,
						dying processes.
						Ocean plastic
						problems, food
						miles, food waste
						and food
						providence.
	Dragons Den Challenges	Dragons Den Challenges	Textiles and	Textiles: Spring	Textiles: Flat to Form	Textiles: Calico
			Resistant materials	Samples – But is it		Challenge
	Textiles 'How can	Textiles 'How can		textiles?	How can we create 3D	
	different cultures be	different cultures be	Design Venture		forms from fabric? 3D	How can we take
	represented in textile	represented in textile	competition.	Challenging	textiles techniques.	inspiration from
	products?' Creating a	products?' Creating a		perceptions and using		nature in textiles?
	soft furnishing inspired	soft furnishing inspired	By the end of this unit	non traditional	Calico Challenge –	Designing and
	by Islamic design.	by Islamic design.	students will know	materials.	How can we take	making a garment
			and understand:		inspiration from	from calico inspired
			How designers	By the end of this unit	nature in textiles?	by nature.
	By the end of this unit	By the end of this unit	working	students will know and	Designing and making	
	students will know and	students will know and	teams and	understand:	a garment from calico	By the end of this
	understand:	understand:	make	A range of	inspired by nature.	unit students will
	How and what	How and what	individual and	different		know and
Learning End	to research in	to research in	group	materials and	By the end of this unit	understand:
Points	terms of the	terms of the	contributions	their working	students will know	How to take
	given context.	given context.	to the design	properties	and understand:	inspiration
	What a	What a	process.	including	➤ A range of	from nature
	user/stakeholder	user/stakeholder	How to	metals and	different	in their own
	is and why they	is and why they	investigate	polymers.	techniques in	designs.
	must be	must be	the design	➤ How non	pattern	➤ How
	considered	considered	and business	traditional	cutting and	patterns for
	when designing.	when designing.	context and	materials can	fabric	garments
	➤ The importance	➤ The importance	why it is	be used in	selection to	are created.
	of cultural	of cultural	important in	textiles.	create desired	➤ How to read
	representation	representation	design.	A range of	3D forms.	pattern
	in textiles.	in textiles.	know what is	more complex	Designerswho have	instructions and follow
	The geometry	The geometry	meant by user	surface design techniques.	been inspired	them to
	methods used to	methods used to	centred	teciniques.	been inspired by nature	mem to
			design.		by Hature	

create Islamic art.

Resistant Materials:

'Can we turn trash to treasure?' Creating products from recycled HDPE.

By the end of this unit students will know and understand:

- Understand polymers and their properties.
- Understand plastic pollution in the sea.
- How to work as a design team.

Food preparation and nutrition

'How can healthy snacks appeal to teenagers?
Creating a healthy biscuit.

By the end of this unit students will know and understand:

How to conduct first hand research in to the needs of their target market. create Islamic art.

Resistant Materials:

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Food preparation and nutrition

'How can healthy snacks appeal to teenagers? Creating a healthy biscuit.

By the end of this unit students will know and understand:

How to conduct first hand research in to the needs of their target market.

- Understand how to identify research needs and carry out research related to a product idea.
- Know how to use research to inform design development.
- Understand issues surrounding sustainability, branding and marketing and manufacturing within product design.
- Understand how branding is used to market products to a target audience.
- understand how design is influenced by the business context for a product
 Food nutring lunch
 By the student stu

understand

Resistant Materials:

How do we design a light source for a user? LED lamp design and make.

By the end of this unit students will know and understand:

- The importance of anthropometric and ergonomic design.
- Different approaches to sketching and rendering when communicating designs.
- How use client feedback to continue to develop their design ideas.
- Different types of light source and their use in lighting.

Food preparation and nutrition: Savoury light lunches for teenager.

By the end of this unit students will know and understand:

- How biomimicry has been used in textiles.
- How to create a client profile and use this to inform their designs.

Resistant Materials:

How do we design a light source for a user? LED lamp design and make

By the end of this unit students will know and understand:

- How to create moveable joints in timber and manufactured boards.
- How to test prototypes.
- Different properties of selected materials and their use in design.
- How to solder a LED light circuit.
- How to test and evaluate

- construct a garment.
- How to apply their knowledge of different surface design techniques into their garment.

Resistant materials:

How can we be innovative in design? Using the design process to be innovative.

By the end of this unit students will know and understand:

- The nature of design innovation.
- Key methods of design research.
- How to present research findings effectively.
- How to present design

The negative
effects of excess
saturated fat.

- How to modify a recipe to appeal to the target market whist balancing nutritional needs.
- The negative effects of excess saturated fat.
- How to modify a recipe to appeal to the target market whist balancing nutritional needs.
- how costing and budgeting is related to product planning.
- now how to develop business and marketing plans.
- Use a number of methods to communicate the final design.
- How to plan and deliver a professional pitch.
- skills used and learned during the project and how could these could be used in other areas of learning.

Food preparation and nutrition – Savoury light lunches for teenager. How can we identify dietary and nutritional needs

through life and select

a suitable starter or

savoury light lunch

dish to make that

- Ingredients and spices used in Thai cuisine.How food
- choices are influenced by different cultures and religions.
- Micro nutrients

 vitamins (fat and water soluble) A, C, B
 D vitamins.
- Gelatinisation and nutritional profile.
- How to plan a dish focusing on nutritional content.
- 14 main allergens.

their work using client feedback.

Food preparation and nutrition: Savoury light lunches for teenager and Mini NEA challenges

By the end of this unit students will know and understand:

Pupils will enhance their knowledge and understanding of what constitutes a healthy balanced diet and good nutrition. This includes the Eatwell Guide, energy balance and the role of the nutrients in a balanced diet.

- solutions effectively.
- How to review their own work and the work of others.

Food preparation and Nutrition:

Savoury light lunches for teenager and Mini NEA challenges

By the end of this unit students will know and understand:

- Food investigation work in preparation for Task 1 on the NEA.
- Foam from different types of egg whites dried powdered, pasteurised and fresh; Stabilising egg white foam.

meets guidelines of	Different
The eatwell guide,	types of fats
nutritionally balanced	in pastry.
and appealing to a	Gluten in
teenager?	different
teenager:	
Du the and of this unit	types of
By the end of this unit	flour.
students will know	Glazes on
and understand:	pastry.
> The	Thickening
nutritional	agents.
needs of a	
teenager.	
> Seasonality,	
sustainable	
fishing and	
farming, food	
miles, organic	
foods, buying	
local, food	
waste, farm	
assured,	
environmental	
impacts linked	
to food	
packaging.	
> Definitions	
and uses of	
kilocalorie	
(kcal),	
kilojoule (kJ),	
physical	
activity level	
(PAL), dietary	
reference	
values (DRV)	
and basal	

			metabolic rate (BMR). Correct storage for meat. Vegetarian protein alternatives. Less familiar grains.			
	<u>Textiles</u> :	Textiles:	Textiles and Resistant	<u>Textiles</u> :	Textiles:	<u>Textiles</u> :
	Islamic design	Islamic design	materials:	Polymers	Design development	Pattern
	Design influence	Design influence	Design process	Timers	iteration	Garment
	Stakeholder	Stakeholder	Business context	Fibres	Pattern	Process
	Culture	Culture	User centred design	Sample	Construction	Construction
	Marketing	Marketing	Research needs	Surface design	Designer	Quality control
	Design iteration	Design iteration	Design development	techniques	Inspiration	Surface design
	Design development	Design development	Branding	Cutting	Biomimicry	Context
	SCAMPER	SCAMPER	Sustainability	Burnishing	2D/3D	Nature
	Batik	Batik	Target audience	Bleaching	Calico	Influence
	Wax resist	Wax resist	Business context	Dyeing	Garment	Feedback
	Construction	Construction	Costing	Wax resist	Surface design	
Key	Prototype	Prototype	Budgeting	Brusho		Resistant materials:
Vocabulary	Presentation	Presentation	Pitch	Embroidery	Resistant Materials:	Innovation
	Pitch	Pitch		Free motion	Pine	Design techniques
	Client	Client	Food preparation and	embroidery	MDF	Design scenarios
	User	User	nutrition:	Sublimation printing	Joint	Product analysis
			Energy needs		LED	Research
	Resistant materials:	Resistant materials:	Saturated fat	Resistant materials:	User	Modelling
	Marketing	Marketing	Nutritional profile	Anthropometrics	Testing	Drawing
	Stakeholder	Stakeholder	Cross-contamination	Ergonomics	Feedback	Design solutions
	Design iteration	Design iteration	Hygiene	Rendering	Solder	Presentation
	Design development	Design development	Kilocalorie (kcal)	Sketching	Finish	Feedback
	SCAMPER	SCAMPER	Kilojoule (kJ)	Design communication	Quality control	
	Polymer	Polymer	Physical activity level	Light source		
	HDPE	HDPE	(PAL)	LED		

Recycling	Recycling	Dietary reference	Food preparation and	Food preparation and	Food preparation
Sea plastics	Sea plastics	values (DRV)	nutrition:	nutrition:	and nutrition:
Client	Client	Basal Metabolic Rate	Vegetarian	Saturated fat	Modification
User	User	(BMR)	Dietary requirements	Creaming method	Adaptation
Shaping	Shaping	Dietary requirements	Seasonality	Calcium	Aeration
Forming	Forming		Sustainable fishing and	Micronutrients (water	Gelatinisation
			farming	and fat soluble)	Stabilising
Food Preparation and	Food Preparation and		Food Miles	Gelatinisation	Hypothesis
Nutrition:	Nutrition:		Organic food		
Diet	Diet		Buying local		
Nutritional Value	Nutritional Value		Food waste		
Energy needs	Energy needs		Farm Assured		
Adaptation	Adaptation		Environmental impacts		
Savoury	Savoury				
Hygiene	Hygiene				
Food groups	Food groups				
Fats	Fats				
Protein	Protein				
Gluten	Gluten				
Sensory analyis	Sensory analyis				