

## Design technologys Year 6s Medium Term Plan Autumn 2, Unit 1: Cooking and Nutrition: Come Dine With Me



Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One: Complementary Flavours (optional)	To explain the use of complementary flavours.	-I can identify the five basic tastes.  -I can match complementary flavours.  -I can explain why certain flavours work well together.	- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  Cooking and Nutrition  - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	- balance - bitter - complement - enhance - pairing - salty - sour - sweet - umami	- Presentation: Basic tastes Presentation: Complementary flavours Presentation: Case studies Equipment for the changing flavours activity (per child s see Attention grabber): - 1 lemon slice; - 1 sugar cube; - 1 paper cup Whiteboards and pens (one between two) Equipment for the taste testing activity (per table s see Main event): - 5 paper plates; - 1 plate with sweet foods such as apple slices or grapes; - 1 plate with sour foods such as lemon slices or pickled onion; - 1 plate with salty foods such as pretzels or cheese cubes; - 1 plate with bitter foods such as cucumber slices or dark chocolate; - 1 plate with umami foods such as cherry tomatoes or cold, cooked chicken Link: Assessment s Design and technology: Y6: Cooking and nutrition: Come dine with me (optional s see Attention grabber).
Tw <del>o</del> :	To research and design a three- course meal.	- I know how to research a recipe by ingredient.	Design	- equipment - flavour - ingredients - method	- Presentation: Bingo s key vocabulary Presentation: Hero ingredients Presentation: Recipe research.

Three ingredients, three courses		<ul> <li>I understand that not all courses complement one another.</li> <li>I can list the ingredients I need for my chosen recipe.</li> <li>I can read the method and list the equipment I need for my chosen recipe.</li> </ul>	- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  Cooking and nutrition  - Understand and apply the principles of a healthy and varied diet.	- research - recipe -	<ul> <li>Whiteboards and pens (one each).</li> <li>Access to computers, laptops or tablets (one between two s see Main event).</li> <li>Access to a printer (see Main event).</li> <li>A4 paper (one between two).</li> </ul>
Three: Ingredients and Skills (optional)	To explain recipe choices.	- I can identify and use preparation techniques needed for a recipe I can explain the combinations of ingredients in a recipe I can seek guidance when something is unfamiliar.	Cooking and nutrition  - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	- Balance - Complement - Enhance - Pairing - preparation	- Presentation: Brain dump Presentation: Flavour pairings Whiteboards and pens (one each).  Equipment for preparing ingredients (see Teacher knowledge).  - An extra adult to supervise The children's chosen recipes for each course Equipment for preparing foods (per group of six):  o 1 vegetable knife; o 1 box grater; o 1 garlic press; o 1 green chopping board; o 1 blue chopping board; o 1 measuring jug; o 1 measuring scale; o 2 peppers; o 1 garlic bulb; o 1 salmon fillet (optional); o 1 carrot (for grating); o 1 tin of pineapple.

Four: To startk	To apply culinary skills and knowledge.	- I can prepare ingredients and follow a recipe safely and sensibly I can describe the farm to fork process for a given ingredient using a storyboard I can contribute a recipe page to a class cookbook using imperative verbs, adjectives and illustrations.	- Select from and use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing, accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  Evaluate - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  Cooking and nutrition - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	- farm to fork - flavour - ingredients - method - preparation - recipe - storyboard	- Presentation: Speak like an expert An additional adult (see Teacher knowledge) A selection of cookbooks (one for each table s see Attention grabber) Flipchart (see Attention grabber) For the starter pairs (see Main event): - Children's ingredient lists, equipment lists and recipes from Lesson 2: Three ingredients; three courses; - Additional ingredients and equipment as required for the starter pairs; - Ten peppers (based on a class of 30) so that each starter pair will have two peppers to prepare For the mains pairs (see Main event): - Devices with internet access; - Al paper Colouring pens/pencils Link: Tescor Eat Happy Project - Slippery salmon from farm to fork For the dessert pairs (see Main event): - Children's recipes from home; - Al paper; - Colouring pens/pencils.
Five: The main course	<ul> <li>To apply culinary skills and knowledge.</li> </ul>	<ul> <li>I can prepare ingredients and follow a recipe safely and sensibly.</li> <li>I can describe the process of farm to fork for a given ingredient using a storyboard.</li> <li>I can contribute an attractive and easily</li> </ul>	Make  - Select from and use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing, accurately.  - Select from and use a wider range of materials and components,	- farm to fork - flavour - ingredients - method - preparation - recipe - storyboard	<ul> <li>Presentation: Expand and add detail.</li> <li>An additional adult (see Teacher knowledge).</li> <li>Children's storyboards from <u>Lesson</u> 4: To starte (see Attention grabber).</li> </ul>

	1		1	Т	T 4 1: 11 C 1 11
		understood recipe page to a class cookbook	including construction materials, textiles and ingredients, according	-	The Activity: Come dine with me scoresheet from Lesson 4:
		using imperative verbs,	to their functional properties and		To <u>startk(</u> see Wrapping up).
		adjectives and	aesthetic qualities.		For the starter pairs (see Main
		illustrations.	destructic quattites.		event):
		masi amirs.	F 1 1		everuj.
			Evaluate		21.11.1
					<ul> <li>Children's recipes</li> </ul>
			- Evaluate their ideas and products		from home;
			against their own design criteria		o a variety of
			and consider the views of others		cookbooks;
			to improve their work.		0 A4 paper;
			,		<ul> <li>Colouring</li> </ul>
			Cooking and nutrition		pens/pencils.
			South and the state of the st		, ,
			- Prepare and cook a variety of	-	- For the mains pairs (see Main
			predominantly savoury dishes		event):
			using a range of cooking		
			techniques.		<ul> <li>Children's ingredient</li> </ul>
			- Understand seasonality, and		lists, equipment lists
					and recipes
			know where and how a variety of		
			ingredients are grown, reared,		from Lesson 2: Three
			caught and processed.		ingredients;
					threecourse;
					<ul> <li>Additional ingredients</li> </ul>
					and equipment as
					required for the
					starter pairs;
					<ul> <li>Ten salmon fillets</li> </ul>
					(based on a class of
					30) so that each pair
					will have two fillets
					to prepare.
				-	- For the dessert pairs (see Main
					event):
					<ul> <li>Devices with internet</li> </ul>
					access;
					0 A4 paper.
					<ul> <li>Colouring</li> </ul>
					pens/pencils.
					o Link: <u>Tesco Eat</u>
					Happy Project -
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					Prickly pineapples from farm to fork on VideoLink.  - Link: <u>Tesco Eat Happy Project -</u> Slippery salmon from farm to fork.
Six: Dessert	To apply culinary skills and knowledge.	- I can prepare ingredients and follow a recipe safely and sensibly I can describe the process of farm to fork for a given ingredient using a storyboard I can contribute an attractive and easily understood recipe page to a class cookbook using imperative verbs, adjectives and illustrations.	- Select from and use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing, accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  Evaluate - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  Cooking and nutrition - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	- farm to fork - flavour - ingredients - method - preparation - recipe - storyboard	- Presentation: Agree or disagree? - An additional adult (see Teacher knowledge) Children's storyboards from Lesson 5: The main course (see Attention grabber) The Activity: Come dine with me scoresheet from Lesson 4:     To startk (see Wrapping up) For the starter pairs (see Main event):

				0	Children's ingredient
				_	lists, equipment lists
					and recipes
					from Lesson 2: Three
					ingredients;
					threecourse;
				0	Additional ingredients
					and equipment as
					required for the
					starter pairs;
				0	Tins of pineapple
					slices s enough so
					that each pair can
					prepare two desserts.
				- Link: Tesco l	Eat Happy Project –
				Prickly pined	ipples from farm to
				<u>fork</u> on Vide	oLink.
					ment s Design and
					6: Cooking and
					me dine with
				<u>me</u> (optional	s see Wrapping up).
Assessment:					
- What is cross-c					
	rationhappens whenk				
- What do we me	an by flavour?				
- The word reared	d in farming means:				
	at is the method?				
- What is a nation					
- A processed for	a has beenk	tables tab			
- It is unportant to	to wash fruit and veget	ambartak			
- When such y Jr.	uit and vegetables, rem ontributes to a healthy	diot			
- Expunt with a	orminates w a reality	wei.			



Design technologys Year 6s Medium Term Plan
Spring 2, Unit 2: Digital World: Navigating the World

Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources

One: Navigating the World	To write a design brief and criteria based on a client request.	<ul> <li>I can write a design brief from information submitted by a client.</li> <li>I can develop design criteria to fulfil the client's request.</li> <li>I can consider and suggest additional functions for my navigation tool.</li> </ul>	Design  Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  Technical knowledge  Apply their understanding of computing to program, monitor and control their products.	- application (app) - client - compass - design criteria - equipment - GPS tracker - Navigation - pedometer - smart - smart - tablet	<ul> <li>Presentation: Navigating the world.</li> <li>Presentation: Design request.</li> <li>Presentation: Micro: bit.</li> <li>Pens or pencils (one each).</li> <li>Highlighters (optional, one each, see Main event).</li> <li>Link: 'Micro: bit Make Code editor' s this is an external website and we do not have control over its content s please check before showing it to the children.</li> <li>children.</li> </ul>
Two: Programming a navigation tool.	To write a program to include multiple functions as part of a navigation device.	<ul> <li>I can program an n, e, s and w cardinal compass.</li> <li>I can explain the key functions in my program, including any additions.</li> <li>I can explain how my program fits the design criteria and how it would be useful as part of a navigation tool.</li> </ul>	Design  - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  Technical knowledge  - Apply their understanding of computing to program, monitor and control their products.	- boolean - copy - duplicate - function - if statement - loop - program - value - variable	- Presentation: Noughts & crosses Presentation: Navigating the world Presentation: Programming a navigation tool Presentation: Micro:bit pass The children's design criteria sheets (see 'Lesson 1: Navigating the world') Devices to access the BBC Micro:bit editor through an internet browser (one between two): - if using tablets, you will need the BBC micro:bit app for guidance on which app to pair with your device (see the link: Guide to mobile and tablet apps s this link has been selected for the teacher and is not intended to be shown to pupils BBC micro:bits with battery packs or mi:power coin cell boards and micro:bit cables

					(optional s. see Teacher guidance).  - Link: 'Micro: bit Make Code editor' (accessed via an internet browser or as an app on the Google Play or Apple store) s. this is an external website and we do not have control over its content s. please check before showing it to the children.
Three: Product concept	To develop a sustainable product concept.	- I can consider materials and their functional properties I can understand the need for sustainability in design I can develop a product idea through annotated sketches.	Design  - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  Make  - Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  Evaluate  - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	- biodegradable - concept - corrode - environmentally friendly - finite - functional properties - infinite - lightweight - materials - mouldable - non-recyclable - product lifecycle - product lifespan - recyclable - sustainable - sustainable design - unsustainable design	- Presentation: Brian dump Presentation: Planet Earth Presentation: Product concept Whiteboard and pen (one each) Pencils or pens (one each) Sketching pencils (one each) Colouring pencils (optional s a selection per table).

Four: 3D CAD models	To develop 3D CAD skills to produce a virtual model.	- I can identify key industries that utilise 3D CAD modelling and explain why I can place and manoeuvre 3D objects using computer-aided design I can change the properties of or combine one or more 3D objects using computer-aided design to produce a 3D CAD model.	- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  Evaluate  - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	- 3D model - CAD - CGI - consumables - group - manoeuvre - opaque - replica - shape  properties - Tinkercad - transparent - ungroup - virtual - workplane	- Presentation: Agree or disagree? - Presentation: 3D CAD Modelling Presentation: Tinkercad modelling Presentation: Final evaluation The children's project workbooks (see Lesson 1: Navigating the world') Computers or laptops with wired mice (one each) Link: Tinkercad.x - Link: The Tinkercad remix projectx (optional, see Adaptive teaching).  xThese are external websites and we do not have control over their content s please check before showing them to the children.
Five: Product Pitch	To present a pitch to sell' the product to a specified client.	- I can explain the key functions and features of my navigation tool I can explain my material choices and why they were chosen I can describe how my product fits the client's request and how it will benefit the customers.	- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  Evaluate  - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	- convince - feature - functional - investment - manufacture - model - pitch - stock	- Presentation: 3, 2, 1 Presentation: Product pitch Presentation: Pitch! - Whiteboard and pen (one each) The children's project books (see 'Lesson 1: Navigating the world') A3 card (one each) Flipchart stand (one s optional, see Main event) Stationery e.g. glue sticks, scissors, colouring pencils, erasers, pencils and pens (a selection on each table) Access to devices and a printer (optional s if the children need to print screenshot of their code and 3D model or demonstrate their program live).

				<ul> <li>Screenshots or printed copies of the children's 3D CAD models and micro:bit code.</li> <li>Link: 'Two sisters on Dragon's Den' on VideoLinkx s this is an external website and we don not have control over its content s please check before showing it to the children.</li> </ul>			
Assessment:	Assessment:						
- What do we mean	n by form?						
- What do we mear	n by function?						
- What do we mear	n by multifunctional?						
- Who is the client	in any design project?						
- What is a magner							
- An accelerometer							
- A pedometer can	- A pedometer can record the number of zzzzzzzztaken						
	Sensors can be useful in smart products becausek.						
- What is a concep							
- What are the pro	rs and cons of 3D CAD modelling?						



## Design technologys Year 6s Medium Term Plan Summer 2, Unit 2: Structures Playgrounds



Lesson	Learning Objective	Success Criteria	National Curriculum Links	Vocabulary	Resources
One: Design a new Playground	To design a playground with a variety of structures.	<ul> <li>I can identify different types of structures used in playgrounds as apparatus.</li> <li>I can consider how the structures can be used.</li> <li>I can design five different pieces of apparatus using three different structures.</li> <li>I can improve my design based on peer evaluation.</li> </ul>	Design  - Use research to develop and inform the design of innovative, functional and appealing products that are fit for purpose and aimed at particular groups.  - Generate, develop, model and communicate ideas through discussion and annotated sketches.  Evaluate	- apparatus - design criteria - equipment - landscape features - plan view - playground	<ul> <li>Presentation: Playgrounds.</li> <li>Presentation: Playground design.</li> <li>Plain paper (one each).</li> <li>Rubbers (one between two).</li> <li>Sharpeners (one between two).</li> <li>A3 card (one each).</li> <li>Link: Assessment s DxT Y6: Structures: Playgrounds (optional s see Attention grabber).</li> </ul>

Two:	To build a range of	- I can build play apparatus	<ul> <li>Investigate and analyse a range of existing products.</li> <li>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> </ul>	- bench hook	- Presentation: Brain dump.
Building Structures	structures.	structures using the techniques demonstrated as well as prior knowledge of structures.  I can explain that structures can be strengthened by manipulating materials and shapes.  I can measure, mark, cut and shape wood to create a range of structures.	- Generate, develop, model and communicate ideas through discussion and annotated sketches.  Make  - Select from and use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing accurately Select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities.  Evaluate - Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  Technical knowledge - Apply their understanding of how to strengthen, stiffen and reinforce complex structures.	- mark out - modify - prototype - reinforce - tenon saw - user	<ul> <li>Whiteboard and pen (one each).</li> <li>The children's playground designs (see Lesson 1: Design a new playground).</li> <li>Ruler (one each).</li> <li>Scissors (one each).</li> <li>Rubber (one between two).</li> <li>10 cm x 10 cm or 5 cm x 5 cm jelutong and/or dowel (a selection for the children to choose from see Main event).</li> <li>Tenon saws and bench hooks or coping saws and vices (one per table see Main event).</li> <li>Lolly sticks or toothpicks (a selection for the children to choose from see Main event).</li> <li>Straws, string, pipe cleaners and card (a selection for the children to choose from see Main event).</li> <li>Foil, egg boxes, cardboard tubes and other junk modelling materials (a selection for the children to choose from see Main event).</li> <li>PVA glue or glue guns (one between two see Main event).</li> <li>Link: Marquettica Architectural Models: Playground miniature modelsα on VideoLink.</li> <li>Link: Backyard Crafts: 3 Easy popsicle sticks playground toy sα on VideoLink.</li> </ul>
					do not have control over their content

					s please check before showing them to the children.
Three: Perfecting Structures	To improve and add detail to structures.	- I can test and adapt my design to improve it I can identify what makes a successful structure I can use a range of materials to reinforce and add decoration to my structures.	Design  Generate, develop, model and communicate ideas through discussion and annotated sketches.  Make  Select from and use a wide range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing, accurately.  Select from and use a wide range of materials and components, including construction materials, according to their functional properties and aesthetic qualities.  Evaluate  Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  Technical knowledge  Apply their understanding of how to strengthen, stiffen and reinforce complex structures.	- cladding - dowel - jelutong - reinforce - structure -	- Presentation: Noughts & crosses Whiteboard and pen (one between two) The children's playground designs (see Lesson 1: Design a new playground) The children's playground structures (see Lesson 2: Building structures) Ruler (one each) Scissors (one each) Rubber (one between two) 10 cm x 10 cm or 5 cm x 5 cm jelutong and/or dowel (a selection for the children to choose from s see Main event) Tenon saws and bench hooks or coping saws and vices (one per table s see Main event) Lolly sticks or toothpicks (a selection for the children to choose from s see Main event) Straws, string, pipe cleaners and card (a selection for the children to choose from s see Main event) Foil, egg boxes, cardboard tubes and other junk modelling materials (a selection for the children to choose from s see Main event) Foil, egg boxes, cardboard tubes and other junk modelling materials: foil, tracing paper, elastic bands, plastic bags, packaging, newspaper, string/wool, leaves, corrugated card/plastic, etc. (a selection for the children to choose from s see Main event) Papier machb (optional s see Main event).

Four: Playground landscapes	To create a surrounding landscape.	<ul> <li>I can attach structures to a base, reinforcing the join where necessary.</li> <li>I can consider the surrounding environment of my playground.</li> <li>I can create landscape features using a range of materials.</li> </ul>	Design  - Use research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals or groups.  - Generate, develop, model and communicate ideas through discussion and annotated sketches.  Make  - Select from and use a wide range of tools and equipment to perform practical tasks for example cutting, shaping, joining and finishing accurately.  - Select from and use a wider range of materials and components including construction materials, according to their functional properties and aesthetic qualities.	- design criteria - natural materials - prototype - user	- PVA glue or glue guns (one between two s see Main event).  - Presentation: Explain the answer The children's structures (see Lesson 3: Perfecting structures) The children's playground designs (see Lesson 1: Design a new playground) Straws, string, pipe cleaners, egg boxes, lolly sticks or toothpicks (a selection for the children to choose from s see Main event) Felt tips, paint, foil or coloured paper (a selection for the children to choose from s see Main event) Natural materials, such as sand, twigs, leaves, stones and tree bark (a selection for the children to choose from s see Main event) Modelling dough or sticky tac (optional s see Main event) Papier machb (optional s see Main event) Papier machb (optional s see Main event) PVA glue or glue guns (one between two s see Main event) Link: Assessment s Dat Y6: Structures: Playgrounds (optional s see Wrapping up)
			-		s. see Wrapping up).
Assessment:			1	1	
- To make a s - What is the - What is a pi - Jelutong is o - What are the - What is the - To modify s	name of a tool? rototype? a type of zzzzzzzzzzz e material properties of name of this view? omething means tok	z it with more materials.  softwood (pine)?  es for woordwork tools.			