Saracens Broadfields Primary School

Design & Technology

Key Stage 2

Curriculum map

Philosophy

There are six underlying attributes at the heart of Saracens Broadfields curriculum and lessons.

1. Lessons and units are knowledge and vocabulary rich so that pupils build on what they already know to develop powerful knowledge.
2. Knowledge is sequenced and mapped in a coherent format so that pupils make meaningful connections.
3. Our flexible curriculum enables teachers to tailor content to other subjects in the curriculum and the current context.
4. Our curriculum is evidence informed through rigorous application of best practice and the science of learning.
5. We prioritise creating a diverse curriculum by committing to diversity in teaching and teachers, and the language, texts and media we use, so all pupils feel positively represented.
6. Creating an accessible curriculum that addresses the needs of all pupils is achieved to accessibility guidelines and requirements.

Inclusive and ambitious

The D&T units are pitched so that pupils with different starting points can access them. Lessons within a unit are sequenced so that each one builds on prior learning. The activities are scaffolded so all children can succeed, and they provide scope for all to be challenged.

Pupil engagement

The D&T lessons are structured to engage pupils in thinking during their lessons - both to engage with the subject matter and to strengthen their memory of what is being learnt.

The nature of D&T is that alongside reading and writing activities in the lessons, pupils will need to be sketching and drawing ideas. In addition, many of our lessons require practical application of the concepts and skills being learned. In many cases this can be done using materials commonly found in the home and the lessons provide guidance on how to use such materials safely alongside adult supervision where necessary and reinforce the learning from the lesson.
It is our intention to contextualise learning where possible and applicable. This real-life application and understanding of D&T is important to show how D&T skills, knowledge and key learning are relevant and applicable in a vast number of areas of work, consumer choices and everyday life.

Motivation through education

D&T engages pupils in learning how to design and make, in order to improve the world they live in.

Where possible, we draw on real-world experiences to provide an engaging context for developing, designing and making skills and knowledge. Every pupil should have the opportunity to make use of their designing and making skills and knowledge and, through this, develop personal achievement. We provide opportunities for pupils to be creative and solve problems by developing their own solutions to real-world contexts and offer (where possible and applicable) various methods to communicate their ideas and understanding.

A curriculum of quality

The D&T curriculum has been put together with careful consideration and by consulting with specialists from IT T, secondary and primary education. This wealth of expertise has resulted in an effective, exciting, relevant, and challenging curriculum for pupils and teachers to engage in. The learning in Key Stages 1 and 2 should provide a good foundation for learning in Key Stage 3 and beyond.

Curriculum design constraints

The D&T curriculum features 20 lessons per Year Group for Key Stage 2, split into two equal units. This is a significantly reduced provision compared to what should ideally be available in a school context and as a result does not fully address all aspects of an ideal D&T curriculum and the national curriculum programmes of study. Due to the constraints of asynchronous learning, there is no easy way to ensure full curriculum coverage. Whilst the curriculum coverage is reduced, we are confident that the fundamentals of a quality D&T curriculum remain and allow both teachers and pupils to benefit from the offering.

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Units Overview:

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4	Cooking and nutrition: Adapting a recipe	Year 4	6
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Unit specifics

Unit title	Prior knowledge required:	Equipment required
Year 3		
Year 3		
Year 4		
Year 4		
Year 4		

Year 5		
Year 5		
Year 6		
Year 6		

Year 3 Lessons

Unit 1: Cooking

Building Blocks:
Year 1- Describe fruits and vegetables and explain how to identify fruits.
Name a range of places that fruits and vegetables grow.
Describe basic characteristics of fruit and vegetables.
Prepare fruits and vegetables to make a smoothie.
Year 2- Name the main food groups and identify foods that belong to each group.
Describe the taste, feel and smell of a given food.
Think of three different wrap ideas, considering flavour combinations.
Construct a wrap that meets the design brief and their plan.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed
1	**Why is food around the world different?**	**Pupils will learn** ● To explain why food comes from different places around the world.	● arid ● climate ● country ● Mediterranean ● mountain ● polar ● temperate ● tropical ● weather	● I can identify some fruits and vegetables that cannot be grown in the UK. ● I can label countries where different fruits and vegetables grow.	● Research ● Compare and contrast	● Atlases (one between two – see Main event)
2	**What are the benefits of using seasonal foods?**	**Pupils will learn** ● To explain the benefits of seasonal foods.	● climate ● export ● import ● seasonal ● seasons	● I know that importing food has an impact on the environment. ● I can match fruits and vegetables with the season in which they grow in the UK. ● I can find recipes containing seasonal foods.	● Research ● Compare and contrast	● Whiteboards and pens (one between two). ● Tablets or devices with internet access (one between two – see Wrapping up). ● Link: BBC Teach - Where does our food come from? on Videolink – this is an external website and we do not have control over its

						content – please check before showing it to the children.
3	**How can I use cutting and peeling to prepare seasonal food?**	**Pupils will learn** ● To develop cutting and peeling skills.	● cut ● grate ● peel ● snip	● I can identify equipment used for preparing food. ● I can explain why food would or would not need to be prepared. ● I can describe the safety rules for preparation techniques.	●	Equipment for practising food preparation. An extra adult to supervise the skills table (see Main event). Equipment to practise cutting skills (see Main event): 2 vegetable knives; 1 green chopping board; 1 brown chopping board; foods to cut, such as asparagus, pickled beetroot, radishes and peppers. Equipment to practise peeling skills (see Main event): 3 peelers; 2 green chopping

						boards; 1 brown chopping board; foods to peel, such as new potatoes and cucumber. 2 large bowls (one for each skill's waste). Equipment for other activities. Plastic knives (two or three per table – see Main event). Foods to discuss such as potatoes, avocados, cucumbers, grapes, bananas, apples, radishes and asparagus.
4	**How can I evaluate the taste of seasonal food?**	**Pupils will learn** ● To evaluate seasonal ingredients.	● fruit ● ingredients ● seasonal ● taste ● texture ● vegetable	● I can identify current seasonal foods. ● I can taste various fruits and vegetables and describe their flavours. ● I can contribute	● Compare and contrast ● Evaluate ●	Flipchart (see Attention grabber). Sticky notes (approximately eight each). Plates of seasonal foods (one or two pieces per child – see Main event):

				to a class taste wheel.		cabbage; spinach; spring onions; cauliflower; new potatoes; cucumbers; radishes; asparagus. Additional ingredients to taste (see Main event): Cheese (a piece per child); Tomato puree (1/4 teaspoon per child);
5	**How can I design a seasonal food tart?**	**Pupils will learn** ● To design a mock-up using criteria.	● complementary ● design ● mock-up	● I can design a puff pastry tart using seasonal vegetables and fruits. ● I can use colours to identify nutritional benefits. ● I can describe my puff pastry tart and the benefits of its ingredients.	● Design ● Select from a range of materials (seasonal foods)	Whiteboards and pens (one each). Class taste wheel from Lesson 4: Tasting seasonal ingredients. Coloured paper (a selection of red, orange, yellow, green, blue and purple – see Main event).

						Coloured pens (a selection on each table – see Main event). Scissors (one between two – see Main event). Glue sticks or PVA glue and spreaders (one between two – see Main event). Paper plates or an A5 rectangle of cardboard (one each – see Main event).

6	**How can I use my design criteria to make and evaluate my seasonal tart?**	**Pupils will learn** ● To evaluate a dish.	● appearance ● evaluate ● taste ● texture	● I can taste tarts and provide feedback. ● I can consider taste, texture, appearance and use of seasonal ingredients. ● I can receive feedback on my tart and identify strengths.	● Make ● Evaluate ● Apply knowledge of how to work safely ● Selecting from a range of tools and equipment ● Assemble, join and combine materials	Equipment for preparing the tarts (this should be completed ahead of the lesson – see Teacher knowledge). An extra adult to supervise the preparation (see Teacher knowledge). Equipment for cutting (see Teacher knowledge): 2 vegetable knives; 1 green chopping board; 1 brown chopping board; foods to cut, such as asparagus, potato, radishes and cucumbers. Equipment for peeling (see Teacher knowledge): 3 peelers; 2 green chopping boards; 1 brown chopping

						board; foods to peel, such as new potatoes and cucumber. Equipment for additional non-focus skills (see Teacher knowledge): 1 box grater; scissors. Additional ingredients (see Teacher knowledge): Ready-rolled puff pastry; Cheese; Olive oil; Tomato puree or pesto; Basil leaves. Baking paper (see Teacher knowledge). Baking trays (see Teacher knowledge). Each child's tart mock-up from Lesson 5: Making a mock-up (see Teacher knowledge). Equipment for

						evaluating the seasonal tarts (to be used during the lesson). Each child's completed seasonal tart. Flipchart (see Main event). A device to record evaluations (see Adaptive teaching). Link: Assessment – Design and technology Y3: Cooking and nutrition: Eating seasonally (optional – see Wrapping up).
Building towards.. **Subsequent years:** **Careers:**						

Unit 2: Structures

Building Blocks: **EYFS -** **Year 1 -** **Year 2 -**						
Lesson number	**Lesson question**	**Pupils will learn**	**Key Vocabulary**	**Substantive knowledge**	**Disciplinary Skills**	**Resources Needed**
1 Pre Assessment Features of a Castle	**What are features of a castle?**	**Pupils will learn** ● To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure.	● 2D ● 3D ● Castle ● Key features ● Stable ● Stiff ● Strong	● I can identify different features of castles. ● I can design my own castle. ● I can label the features of my castle. ● I can explain why a castle needs to be strong and stable.	● Research ● Design ● Annotate sketches and diagrams ● Investigate the background of existing designs	● Diagnostic Assessment ● Rulers (one per pupil). ● Optional: A4 paper for children making the Activity: Cut and glue castle to assemble and stick their castle pieces onto. ● Optional: A large selection of 2D shapes for the children to draw around.

2 Designing a castle	**What 3D shapes can I use to design a castle?** *****	**Pupils will learn** ● To design a castle.	● 2D ● 3D ● castle ● shape	● I can recall the features of a castle. ● I can draw the design of my castle using 2D shapes and labelling: ○ the 3D, the materials I need, the colours I will use.	● Designing a castle ● Annotating their castle sketch	● 3D Maths shapes.
3 Nets and Structures	**How do I make a 3D shape net?**	**Pupils will learn** ● To construct 3D nets.	● castle ● net ● shape ● structure	● I know that a net is what a 3D shape would look like if it were opened out flat. ● I can construct a range of 3D geometric shapes using a net by: ○ Cutting and folding along the dotted lines. ○ Keeping the tabs the	● Assemble, join and combine materials to construct 3D nets	● Printed nets: cuboid, cube, prism, pyramid, cylinder and cone using Activity: 3D shape nets. ● Scissors (one per pupil). ● Glue sticks (one between two pupils). ● Blue tac. ● Tape. ● Collected toilet/kitchen roll tubes, packaging

				correct size. ○ Making crisply folded edges. ○ Constructing the net using glue to make a geometric shape.		etc. ● Optional: squared paper for children to make their own nets.
4	**How can I use my design criteria to make and evaluate my castle?**	**Pupils will learn** ● To construct and evaluate my final product.	● castle ● design ● net ● Scoring ● structure ● tab	I can construct my castle to meet the requirements of my brief by: ● Making neat 3D shapes using nets. ● Stacking shapes and recyclable materials to make the structures of my castle. ● Creating a castle base to secure my structures to. ● Adorning my castle with facades and other decorative	●	● Scissors (one per pupil). ● Blue tac. ● Glue sticks (one per two pupils). ● Tape. ● Collected kitchen roll tubes, packaging, etc. ● Optional: squared paper for children to make their own nets. ● Squared grid paper. ● Materials for the structures and castle base: two

				features. ● I can evaluate my work and the work of others.		A3 pieces of card per pupil, one piece cut in half lengthways. ● Materials for the façades: ○ A3 coloured card. ○ Material textures printed, e.g. stone tiles, brickwork, etc.
5	**Evaluation + Assessment**	*Continuing the previous lesson*				Assessment
Building towards.. **Subsequent years:** **Careers:**						

Unit 3: Textiles

Building Blocks: Textiles: Pouches (Y2), History: Ancient Egypt (Y3)

Lesson #	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills (unit)	Resources Needed
1	**What are cross-stitch and appliqué?** (Practical final NSQ answer - purple pen to label each example)	**Pupils will learn to:** ● use the cross-stitch sewing technique ● use appliqué ● reflect on the techniques used	● unique ● appliqué ● cross-stitch ● embellish ● fabric ● patch ● running stitch ● thread	● I can use the cross-stitch sewing technique. ● I know how to appliqué. ● I can reflect on the techniques used.	● Designing and making a template for an Egyptian collar and applying individual design criteria. ● Following their design criteria to create an Egyptian collar. ● Selecting and cutting fabrics with ease using fabric scissors. ● Threading needles with greater independence. ● Tying knots with greater independence. ● Sewing cross stitch to decorate or join fabric. ● Decorating fabric using appliqué, beads (or other embellishments), ribbon and pinking scissors. ● Evaluating an end product.	● Diagnostic ● Knowledge organiser ● Examples of appliqué ● Scraps of fabric ● Sewing needles ● Needle threaders ● Cotton or polyester embroidery thread ● Seam ripper ● Safety pins or sewing clips
2	**How are templates developed and used?**	**Pupils will learn to:** ● design a collar based on a set theme. ● develop a template. ● adapt a template to fit design criteria.	● Ancient Egypt ● asymmetrical ● pharaohs ● symmetrical ● template ● uekh/wesekh ● unique	● I can design a collar based on a set theme. ● I can develop a template. ● I understand how to adapt a template to fit design criteria.		● Whiteboards and pens ● Fabrics, beads and ribbons ● A4 felt sheets ● Named wallets ● Colouring pencils ● Collar template ● Self-evaluation

3	**How are templates used to cut fabric?** (Final NSQ answer - photos + purple pen sentence)	**Pupils will learn to:** ● cut and shape fabric accurately. ● use a template to create the main parts of my fabric product. ● use stitches to join fabrics. ● know that fabrics have different properties depending on the material.	● cotton ● polyester ● running stitch ● silk ● template	● I can cut and shape fabric accurately. ● I can use a template to create the main parts of my fabric product. ● I can use stitches to join fabrics. ● I know that fabrics have different properties depending on the material.		As L2 plus: ● Cotton, polyester & silk samples ● Ribbon (30 cm each) ● Tablet for photos ● Chalk ● Glue sticks
4	**How can I decorate using appliqué and cross-stitch?** (Final NSQ answer - photos + purple pen sentence)	**Pupils will learn to:** ● follow design criteria ● use cross-stitch ● add appliqué	● appliqué ● cross-stitch ● embellish ● pinking ● running stitch ● template	● I can follow design criteria. ● I can use cross-stitch. ● I can add appliqué.		As L3 plus: ● Pinking scissors
5	**Evaluation + Assessment**					● Evaluation sheets ● Assessment
Building towards.. **Subsequent years: KS3 Textiles/Technology** **Adult life: Sewing skills, creative hobbies** **Careers: Tailor, embroiderer,**						

Year 4 Lessons

Unit 1: Structures - Pavilions

Unit Outcomes:

Pupils who are secure will be able to:

Produce a range of free-standing frame structures of different shapes and sizes.

Design a pavilion that is strong, stable and aesthetically pleasing.
Select appropriate materials and construction techniques to create a stable, free-standing frame structure.
Select appropriate materials and techniques to add cladding to their pavilion.

Building Blocks: **EYFS -**						
Lesson number	**Lesson question**	**Pupils will learn**	**Key Vocabulary**	**Substantive knowledge**	**Disciplinary Skills**	**Resources Needed**
1 Start of Unit DA Exploring frame structures	Can you name a range of different shaped frame structures ?	**Pupils will learn** ● To create a range of different shaped frame structures.	3D shapes aesthetic innovative natural pavilion reinforce stable structure	● I can make a variety of different frame structures. ● I know what the structure (pavilion) is used for.	- Research; - Make; -Design - assemble, join and combine materials;	- Small sweets, mini marshmallows or plasticine (approximately 40 each or per pair). - Toothpicks (approximately 60 each or per pair). Devices with camera capabilities (one between two if possible).
2 Designing a Pavilion	What do you need to design a structure?	**Pupils will learn** ● To design a structure.	aesthetic design criteria innovative inspiration	● I can understand that different materials can create different	- select from a range of materials; - compare and contrast;	A4 stiff card (one each or one between two). Link: De Zeen- Pavilion

			pavilion structure target audience theme	effects. ● I can understand how to make a stable structure. ● to design a structure	-	examples – *this is an external website and we do not have control over its content – please check before showing it to the children.*
3 Pavilion Frame	What materials can you use to build a frame structure?	**Pupils will learn** ● To build a frame structure.	frame structure reinforce stable structure	● I can build a free-standing structure. ● I can select appropriate materials to build a strong structure. ● I can use my knowledge of how to reinforce corners to strengthen my structure. ● I can refer to my design sheet to create my pavilion.	- make; - design; - select from a range of materials; - assemble, join and combine materials	Assorted materials for making the frame e.g. matchsticks, lolly sticks, toothpicks, straws, pipe cleaners and card triangles (a selection for the children to choose from). PVA glue (one between two). Glue guns (optional – see Main event) Tape (optional – one between two). The children's baseboards and

						design sheets from *Lesson 2: Designing a pavilion*.
4 Pavilion Cladding	How do you add cladding to a frame structure?	**Pupils will learn** ● To add cladding to a frame structure.	3D shapes cladding design criteria dnnovative natural reinforce structure	● I can select appropriate materials for my cladding. ● I can add cladding which reflects my design. ● I can create different textural effects with my chosen material.	- make; - design; - select from a range of materials; - assemble, join and combine materials;	A small piece of paper (one each – see Attention grabber). Scissors (one each). Pencil (one each). PVA glue (one between two). A wide range of craft materials, e.g. tracing paper, card, coloured paper, sweet wrappers, leaves, crepe paper, fabrics, newspaper, wool, string, etc. (a selection for the children to choose from). Papier-mache (optional – see Main event).

						The children's design sheets and baseboards with frame structures from *Lesson 3: Pavilion frame*.
5 End of Unit Assessment						
Building towards.. **Subsequent years:** **Careers:**						

Unit 2: Adapting a recipe

Unit Outcomes:

- Describe features of biscuits using taste, texture and appearance.
- Follow a recipe with support.
- Use a budget to plan a recipe.
- Adapt a recipe using additional ingredients.

Building Blocks:

Year 1- Describe fruits and vegetables and explain how to identify fruits.
Name a range of places that fruits and vegetables grow.
Describe basic characteristics of fruit and vegetables.
Prepare fruits and vegetables to make a smoothie.

Year 2- Name the main food groups and identify foods that belong to each group.
Describe the taste, feel and smell of a given food.
Think of three different wrap ideas, considering flavour combinations.
Construct a wrap that meets the design brief and their plan.

Year 3- Explain that fruits and vegetables grow in different countries based on their climates.
Understand that seasonal fruits and vegetables grow in a given season.
Understand that eating seasonal fruit and vegetables positively affects the environment.
Design a tart recipe using seasonal ingredients.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed

1 - Start of unit DA + Existing Biscuits	**How do we evaluate biscuit products?**	**Pupils will learn** ● To evaluate existing biscuit products.	- Buttery - Crunchy - Ingredients - Target audience - Taste - texture	- I can describe different types of biscuits and their packaging. - I can identify the taste and texture of existing biscuits. - I can explain how I know a biscuit is made for a certain target audience.	- Investigating existing products	- bourbon; - pink wafer; - iced rings; - digestive; - chocolate chip cookie; - fruit shortcake
2 - Basic Biscuits	**How do you prepare to bake a biscuit?**	**Pupils will learn** ● To prepare and cook a dish.	- Combine - Cream - Hygiene - Sieve - Sift - wooden spoon	- I can follow simple food safety and hygiene rules. - I can follow a recipe and use a cooking technique. - I can discuss how a recipe can be changed.	- Research - Compare and contrast - Apply knowledge on how to work safely - Assemble, join and combine materials - Formulate step by step plans as a guide to making - Apply accurate measuring, marking out	1 large mixing bowl; 1 small bowl; 1 white chopping board; 1 sieve; 1 electronic scale; 1 biscuit cutter; 1 baking tray; 1 wooden spoon; 1 large spoon (to separate the egg); oven gloves; 1 wire rack; 1 measuring spoon (tsp); 1 rolling pin; 1 sheet of baking

					and cutting - Make - Evaluate	paper. Ingredients for making biscuits (per group of five – see Main event): 250 g butter; 1 egg; 140 g caster sugar; 2 tsp vanilla essence; 300 g plain flour
3 - Budgeting	**How do you select ingredients for a target audience?** **How do you budget for your ingredients ?**	**Pupils will learn** ● To select ingredients and follow a budget.	- Addition - Appearance - Budget - Design - Ingredients - Multiplication - pounds	● To select ingredients for a target audience. ● To calculate the cost of extra ingredients. ● To create a design for the final product.	- Make - Apply knowledge of how to work safely - Selecting from a range of tools and equipment - Selecting from a range of materials - Design - Research - Investigating existing products	- Examples of products in packaging showing ingredients and cost

4 - Packaging	**How do you design the packaging of a product?**	**Pupils will learn** ● To take inspiration from existing products.	- construct - cuboid - cut - fold - layout - target - audience	● To describe the packaging of different biscuits. ● To create a design for a biscuit box. ● To fold and construct a cuboid template.	- Investing existing products; - Investing the background of existing products - design; - Apply accurate measuring, marking out and cutting	- Different types of packaging which can be opened out - Cuboid net - A3 card - Glues stick
5 - Market Research	**How can I modify my biscuit recipe?** **What is market research?**	**Pupils will learn** ● To make and test a prototype biscuit.	- adapt - ingredients - modify - unique - market - research	● To follow a recipe. ● To modify the recipe using my design ideas and budget. ● To collect feedback from a member of my target audience.	- Make; - Formulate step by step steps as a guide to making; - Investigating existing products; - Compare and contrast;	Per group: - 250g butter - 1 egg - 140g caster sugar - 2 tsp vanilla essence - 300g plain flour
6 - Evaluating Biscuits + End of unit DA	**How can I evaluate my biscuits?**	- To evaluate a final product.	- Comment - Compare - Opinion - Evaluate	- To create criteria for evaluation; - to present my design for evaluation;	- Evaluate	

				- to evaluate the designs of others using criteria.		
Building towards.. **Subsequent years:** **Careers:**						

Unit 3: Textiles: Fastening

Unit Outcomes:

Pupils who are secure will be able to:

Identify the features, benefits and disadvantages of a range of fastening types.
Write design criteria and design a sleeve that satisfies the criteria.
Make a template for their book sleeve.
Assemble their case using any stitch they are comfortable with.

Skills: Writing design criteria for a product, articulating decisions made.

Designing a personalised book sleeve.
Making and testing a paper template with accuracy and in keeping with the design criteria.
Measuring, marking and cutting fabric using a paper template.
Selecting a stitch style to join fabric.
Sewing neatly using small regular stitches.
Incorporating a fastening to a design.
Testing and evaluating an end product against the original design criteria.

Knowledge: To know that a fastening is something that holds two pieces of material together.
To know that different fastening types are useful for different purposes.
To know that creating a mock-up (prototype) of their design is useful for checking ideas and proportions.

Building Blocks: **EYFS -**						
Lesson number	**Lesson question**	**Pupils will learn**	**Key Vocabulary**	**Substantive knowledge**	**Disciplinary Skills**	**Resources Needed**
1 Evaluating fastenings + Diagnostic Test		**Pupils will learn** • To explain the advantages and disadvantages of different types of fastening type.	Fabric, fastening, fix.	• I know what the main types of fastenings are. • I can say what the benefits of each fastening type are. • I can say what the disadvantages of each fastening type are.	- Compare and contrast. - Investigating existing products.	Physical examples of fastenings
2 Designing my book sleeve		**Pupils will learn** • To design a product to meet design criteria.	Fabric, fastening, fix, design criteria	• I can design a product based on a design criteria. • I can write a design criteria. • I can design	- Design - Annotate sketches and diagrams.	A3 pieces of paper, children's books (their own), A4 pieces of paper (two sheets per child), range of

				including a fastening.		fastenings to explore - must be the same range they will be able to use.
3 Paper mock-up and preparing fabric		**Pupils will learn** ● To make and test a paper template.	Fabric, fastening, Fix, mock-up template.	● I can make a paper template. ● I can know how to test my paper template.	- Make - Apply accurate measuring, marking out and cutting.	A3 paper, ponds, fabric, fastenings, scissors.
4 Assembling my book sleeve		**Pupils will learn** ● To assemble a book jacket.	Fabric, fastening, fix, needle, needle eye, thread, stitch.	● I can join fabric by sewing. ● I can stick to my design criteria. ● My product is fit for purpose.	- Make - Assemble, join and combine materials. - Apply accurate measuring, marking out and cutting.	Thread, needles, fabric glue, decorative items, fastenings (e.g. buttons, press studs, ties).
5 End of unit assessment						
Building towards.. **Subsequent years:**						

Careers:	

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Year 5 Lessons

Unit 1: Cooking and Nutrition: Developing a Recipe

Building Blocks: **EYFS - Explore differences between fruits and vegetables.**

Use five senses to explore a pumpkin.
To design a fruit and vegetable soup.
To use a knife safely.
To safely use tools to prepare ingredients.
Making a soup.
Designing soup packaging.

Year 1- Describe fruits and vegetables and explain how to identify fruits.
Name a range of places that fruits and vegetables grow.
Describe basic characteristics of fruit and vegetables.
Prepare fruits and vegetables to make a smoothie.

Year 2- Name the main food groups and identify foods that belong to each group.
Describe the taste, feel and smell of a given food.
Think of three different wrap ideas, considering flavour combinations.
Construct a wrap that meets the design brief and their plan.

Year 3- Explain that fruits and vegetables grow in different countries based on their climates.
Understand that seasonal fruits and vegetables grow in a given season.
Understand that eating seasonal fruit and vegetables positively affects the environment.
Design a tart recipe using seasonal ingredients.

Year 4- Describe features of biscuits using taste, texture and appearance.
Follow a recipe with support.
Use a budget to plan a recipe.
Adapt a recipe using additional ingredients.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed
1	Diagnostic Assessment	**Recap and recall** Before undergoing this				

		unit, you may want to check that children understand that: There are different techniques to prepare food. Healthy food forms part of a balanced diet. Hygiene is important when working with food.				
2	How are ingredients reared and processed?	**Pupils will learn** ● Understand how ingredients are reared and processed.	● abattoir ● beef ● farm ● ingredients ● process	-I can identify the ingredients in spaghetti bolognese. -I can create an informative poster. -I can explain the journey of beef from farm to table.	- Explaining the farm-to-fork process.	- Everyday stationery.
3	How do you design a recipe?	**Pupils will learn** ● To make adaptations to design a recipe.	● adaptation ● enhance ● ingredients ● preference	-I can compare two bolognese sauces. -I can research unique ingredients in different bolognese recipes. -I can plan an	- Understanding the context and user. - Researching existing recipes. - Suggesting	-2 different bolognese sauces and their packaging (one teaspoon per child – see

				adaptation of a basic bolognese recipe.	alternative ingredients.	Attention grabber). -Small bowls (two per table – see Attention grabber). -Teaspoons (two each – see Attention grabber). -Access to a hob (see Teacher knowledge).
4	How do we evaluate nutritional content?	**Pupils will learn** ● To evaluate nutritional content.	● adaptation ● evaluate ● justify ● nutrient ● nutritional value	-I can use a nutrition calculator. -I can compare nutritional values. -I can make ingredient choices based on nutritional values. -I can modify a recipe to contain different ingredient choices.	- Analysing nutritional content.	-The children's Activity: Recipe changes from Lesson 2: Different choices. -Examples of bolognese packaging from Lesson 2: Different choices. -Photocopies of the nutritional values and ingredient lists from the bolognese packaging (one

						set per group of two or three). -Devices with spreadsheet and document editing capability (one each – see Main event).
5	How do we prepare ingredients ?	**Pupils will learn** ● To practise food preparation skills.	● cook ● cross-contamination ● cut ● equipment ● grate ● hygiene ● measure ● press ● safety	● I can use a nutrition calculator. ● I can compare nutritional values. ● I can make ingredient choices based on nutritional values. ● I can modify a recipe to contain different ingredient choices.	- Understanding cross-contamination.	-The children's Activity: Recipe changes from Lesson 2: Different choices. -Examples of bolognese packaging from Lesson 2: Different choices. -Photocopies of the nutritional values and ingredient lists from the bolognese packaging (one set per group of two or three). -Devices with spreadsheet and

						document editing capability.
6	How do we design a label?	**Pupils will learn** ● To design a product label.	● brand ● theme ● design ● label	● I can measure and cut to fit specific dimensions. ● I can design a label thinking about colours, ingredients and the contents of the jar. ● I can evaluate a design against criteria.	- Designing a jar label.	-Jars with the label removed (one each – see Attention grabber). -A 30 cm length of string (one each – see Attention grabber). -Collected bolognese packaging (one each – see Main event). -A4 paper (one each).
7	What are the steps taken to cook bolognese?	**Pupils will learn** ● To follow and make an adapted recipe.	● balanced ● cross-contamination ● ingredients ● measure ● nutrition ● recipe	● I can use a recipe to gather the correct quantities of ingredients. ● I can select the right equipment for each preparation technique. ● I can make a video to explain	- Apply knowledge on how to work safely. - Formulate step by step plans as a guide to making.	**<u>Equipment for making the bolognese</u>** The children's adapted recipe from Lesson 3: Nutritional value. Each group's ingredients. Equipment for

				a recipe.		preparing foods (per group of five): 1 vegetable knife; 1 box grater; 1 garlic press; 1 green chopping board; 1 brown chopping board; 1 pair of scissors; 1 set of scales; 1 measuring jug. Equipment for cooking (per group of five): 1 saucepan; 1 tablespoon; 1 wooden spoon. Equipment for cooking mince and spaghetti (optional – see Teacher knowledge): 2 saucepans; 1 wooden spoon; 1 colander. Equipment for creating a video The children's adapted recipe

						from Lesson 3: Nutritional value. A device for recording video (one per group – see Main event). Link: iMovie.* Link: WeVideo.* Equipment for the Wrapping up A device for taking photos (one for an adult – see Wrapping up). Link: Assessment – Design and technology Y5: Cooking and nutrition: Developing a recipe (optional – see Wrapping up).
8	Evaluation / Summative Assessment	Quiz			- Evaluate.	
Building towards.. Year 6 critically evaluate a product, Year 6 cooking unit **Subsequent years:**						

KS3 Healthy Eating & Nutrition , Food Science, Cooking Techniques, Sustainability & Food Ethics, Cultural & International Cuisines.

Careers: 1. Food & Hospitality Industry

- Chef – Creating and preparing dishes in restaurants, hotels, or catering.
- Baker/Pastry Chef – Specializing in bread, cakes, and pastries.
- Caterer – Planning and cooking meals for events, schools, or businesses.
- Restaurant Manager – Overseeing a restaurant's operations, menu planning, and customer service.

2. Nutrition & Health

- Dietitian/Nutritionist – Advising people on healthy eating and balanced diets.
- Food Scientist – Developing and testing food products for safety and nutrition.
- Sports Nutritionist – Creating meal plans for athletes to improve performance.
- Health Coach – Guiding individuals on diet, fitness, and overall wellness.

3. Food Media & Innovation

- Food Blogger/Vlogger – Sharing recipes, reviews, and cooking tips online.
- Food Photographer – Capturing images for cookbooks, magazines, and websites.
- Recipe Developer – Creating and testing new recipes for brands or publications.
- TV Chef/Food Presenter – Hosting cooking shows and teaching culinary skills.

4. Science & Sustainability

- Food Technologist – Developing new food products and ensuring quality control.
- Agricultural Scientist – Researching better ways to grow food sustainably.
- Environmental Health Officer – Ensuring food safety standards in restaurants and food production.
- Food Waste Reduction Specialist – Finding solutions to reduce food waste in homes and businesses.

5. Education & Community Work

- Food Teacher – Teaching cooking and nutrition in schools.
- Community Nutritionist – Educating people about affordable, healthy eating.
- School Chef – Preparing nutritious meals for students in schools.

Unit 2: Reactions - Crumble (Digital World)

Building Blocks: **EYFS -**							
Lesson number	**Lesson question**		**Pupils will learn**	**Key Vocabulary**	**Substantive knowledge**	**Disciplinary Skills**	**Resources Needed**
1			**Pupils will learn** ●				
2.	**What are electrical systems?**		**Pupils will learn** ● that mechanical and electrical systems have an input, process and output ● the correct technical vocabulary for the projects they are undertaking ● accurately assemble, join and	● conductor ● insulator ● component ● simple circuit	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	Understand how products can be driven by electricity	

			combine materials and components ● use techniques that involve a number of steps				
3.	**How do you control simple circuits to create more functional products?**		**Pupils will learn** ● work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment ● how more complex electrical circuits and components can be used to create functional products ● how to program a computer to monitor changes in the environment and control their	● microprocessor ● programme ● voltage ● resistor ● smart device	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	● Some experience of writing and modifying a program e.g. Scratch ● Control speed and direction	

			products ● how to use learning from science to help design and make products that work				
4.	**How do you respond to a design brief?**		**Pupils will learn** ● develop a simple design specification to guide their thinking ● use annotated sketches to develop and communicate their ideas	● smart device ● recycle ● specification ● concept	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	● develop a simple design specification to guide their thinking ● use annotated sketches to develop and communicate their ideas	

5.	**How do you develop an idea further?**		**Pupils will learn** ● develop a simple design specification to guide their thinking ● use exploded diagrams to develop and communicate their ideas	● Initial idea ● Final idea ● Exploded view ● develop	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	● use exploded diagrams to develop and communicate their ideas	
6.	**How do you plan to make an end product?**		**Pupils will learn** ● formulate step-by-step plans as a guide to making ● select tools and equipment suitable for the task	● plan ● inform	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical	● formulate step-by-step plans as a guide to making	

					product.	• select tools and equipment suitable for the task	
7.	**How do you make a final prototype?**		**Pupils will learn** • the correct technical vocabulary for the projects they are undertaking • accurately assemble, join and combine materials and components	• prototype • mark out • component • assemble	• Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	• • Understand how products can be driven by electricity • Control speed and direction • Use different sorts of switches	

8.	**How do you incorporate the electrical system?**	**Pupils will learn** ● identify the strengths and areas for development in their ideas and products ● consider the views of others, including intended users,	● simple circuit ● programme ● control ● component	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	● consider the views of others, including intended users, to improve their work	1.	**How do you incorporate the electrical system?**

		to improve their work					
10.	**Assessment and Evaluation**	**Pupils will learn** ● explain how particular parts of their products work ● critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they	● test ● evaluate ● specification ● advantages ● disadvantage	● Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	● Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make		

		• design and make • evaluate their ideas and products against their original design specification					
Building towards.. **Subsequent years:** **Careers:**							

Unit 3: Structures - Bridges

Building Blocks: **EYFS - To understand what waterproof is and to test whether materials are waterproof.** **To test and make predictions for which materials float or sink.** **To compare the uses of boats.** **To investigate how the shape and structures of boats affects the way they move.** **To design a boat.** **To create a boat based on their own design.** **Year 1- Follow design criteria to meet the needs of a user.**

Make a stable structure.
Make functioning sails/blades that attach to the supporting structure.
Improve their windmill.

Year 2- Identify man-made and natural structures.
Identify stable and unstable structural shapes.
Contribute to discussions.
Identify features that make a chair stable.
Work independently to make a stable structure, following a demonstration.
Explain how their ideas would be suitable for Baby Bear.
Produce a model that supports a teddy, using the appropriate materials and construction techniques.
Explain how they made their model strong, stiff and stable.

Year 3- Draw and label a simple castle that includes the most common features.
Recognise that a castle is made up of multiple 3D shapes.
Design a castle with key features which satisfy a given purpose.
Score or cut along lines on the net of a 2D shape.
Use glue to securely assemble geometric shapes.
Utilise skills to build a complex structure from simple geometric shapes.
Evaluate their work by answering simple questions.

Year 4- Produce a range of free-standing frame structures of different shapes and sizes.
Design a pavilion that is strong, stable and aesthetically pleasing.
Select appropriate materials and construction techniques to create a stable, free-standing frame structure.
Select appropriate materials and techniques to add cladding to their pavilion.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed
1	Diagnostic Assessment					

2	What is the difference between a beam and an arch bridge?	**Pupils will learn** ● To explore how to reinforce a beam (structure) to improve its strength.	● arch bridge ● beam bridge ● corrugation ● lamination ● rigid ● stiff ● strength ● technique	● I can identify beam and arch bridges. ● I can create a range of beam and arch bridge designs. ● I can identify stronger and weaker structures. ● I can find different ways to reinforce structures.	Investigating existing products Designing a stable structure that is able to support weight.	- A4 Card - weight (Toy Car) - wooden Blocks - masking tape - straws
3	What skills are required to create a spaghetti truss bridge?	**Pupils will learn** ● To build a spaghetti truss bridge	● aesthetics ● factors ● joint ● stability ● stiffness ● strength ● truss bridge	● I can use triangles to create truss bridges and test them. ● I can identify arch, beam and truss bridges.	● Design ● Make ● Evaluate	● *Presentation: Brain dump.* ● *Presentation: Truss bridges.* ● Whiteboard and pen (one each). ● Spaghetti (approximately 100g per child or pair, depending on the length of the bridge – see Main event).

						• Masking tape (one between two). • Weights (e.g. bean bags – see Main event). • Rulers (one each). • A device with camera capabilities (one – see Main event). • Glue guns (optional – see Main event).
4	**What are the differences between a wooden truss bridge and an arch Bridge?**	**Pupils will learn** • To build a wooden truss bridge.	• assemble • bench hook/vice • hardwood • material properties • mark out • sandpaper • softwood • tenon saw/coping saw • truss bridge	• I can measure and mark out accurately on wood.	• Selecting from a range of materials and equipment	

			• wood file/rasp			
5		**Pupils will learn** •				
Building towards.. Year 6 Structures- Playground. **Subsequent years:** **Careers:**						

Year 6 Lessons

Unit 1: Computer Aided Design - Key Chains

Building Blocks:
EYFS: Explore how things work. (Nursery - Electricity)
Computing:
Year 1: Coding with Beebots, Scratch Jr**:** Drive across the city
Year 2: Scratch Jr - Cool characters and animating a sprite.
Year 3: Lost in Space, Ozobots - Control lesson.
Year 4: Chatbot, Micro Bits
Year 5: Space Junk Game, Selection in Physical Computing

Design and Technology:
Year 4: Unit 4 Electronics: simple circuits and switches
Year 5: Unit 6 Reactions (Control in D&T)
Year 5 Art and Design: Photography and mixed media
Year 6 Art and Design: Digital and New Media

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed
1	**How do we analyse existing products' designs?**	**Pupils will learn** ● how innovative products are ● what impact products have beyond their intended purpose ● what methods of construction have been used ● how well products meet user needs and wants	design criteria, design decisions, Ergonomics Function (primary and secondary) Emotion Product Proportion Texture analyse	Understanding of computer aided designs and how they promote efficiency.	Investigating existing products	

2	**Why do we need to research before designing?**	**Pupils will learn** ● carry out research, using surveys and web-based resources	Mood board Design brief Primary and secondary research	Understanding of computer aided designs and how it promotes efficiency.	Carry out research, using surveys and web-based resources	
3	**How can we identify what our users want?**	**Pupils will learn** ● identify the needs, wants, preferences and values of particular individuals and groups ● develop a simple design specification to guide their thinking ● ruler, paper	Client Primary research Target market Analyse Mind map Questionnaire FLUMPS (Function, looks, user, materials, pros and cons, sustainability) Open questions Closed questions ● Computer-aided design, (CAD), ● Computer-aided manufacture (CAM)	Understanding of computer aided designs and how it promotes efficiency.	Understand that designers must address a range of needs	

4	**Who are architects and what do they do?**	**Pupils will learn** ● about designers and engineers who have developed ground-breaking products	Architecture Structure Durability Utility Beauty revolutionise	Understanding of computer aided designs and how it promotes efficiency.	investigate the background of existing designers	
5	**What is a specification and why do we need to write one?**	**Pupils will learn** ● work confidently within a range of contexts, such as the home, school, leisure, culture, industry and the wider environment ● describe the purpose of their products ● indicate the design features of their products that will appeal to intended users ● explain how particular parts of their products work	Specification (design and manufacturing) ACCESS FM (Aesthetics, cost, customer, environment, safety, size, function, materials) Quantity Materials Measurements Features Testing	Understanding of computer aided designs and how it promotes efficiency.	● describe the purpose of their products ● indicate the design features of their products that will appeal to intended users ● explain how particular parts of their products work	

6	**What makes an effective range of initial design ideas?**	**Pupils will learn** ● generate innovative ideas, drawing on research ● make design decisions, taking account of constraints such as time, resources and cost ● model their ideas using prototypes ● use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas	● Freehand sketching ● Prototype design ● Sketch ● Isometric ● Prototype ● 3D drawing	● Understanding of computer aided designs and how it promotes efficiency. ●	● make design decisions, taking account of constraints such as time, resources and cost ● model their ideas using prototypes ● use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas	● 6

7	**What are the benefits of using computer aided design?**	**Pupils will learn** ● select materials and components suitable for the task ● explain their choice of materials and components according to functional properties and aesthetic qualities ● use computer-aided design to develop and communicate their ideas	Computer Aided Design TinkerCad augmented reality, face, plane, extrude, view cube, dimension, radius, align, empathy, scale, modify, repeat, copy, flip design brief, 2D 3D	Understanding of computer aided designs and how it promotes efficiency.	● explain their choice of materials and components according to functional properties and aesthetic qualities ● use computer-aided design to develop and communicate their ideas.	
8	**How can you develop designs using computer aided design?**	**Pupils will learn** ● accurately measure, mark out, cut and shape materials and components ● accurately assemble, join and combine	Computer Aided Designs Developments Fine tune Specifications	Understanding of computer aided designs and how it promotes efficiency.	Formulate and fine tune specifications .	

		materials and components ● use computer-aided design to develop and communicate their ideas				
9	**How can you present and share your final designs?**	**Pupils will learn** ● share and clarify ideas through discussion ● carry out research, using surveys and web-based resources	Rendering Working drawings Plan view Front view Side view	Understanding of computer aided designs and how it promotes efficiency.	● carry out research, using surveys and web-based resources understanding the context and the user.	
10	**Why is it important to evaluate your final designs?**	**Pupils will learn** ● the correct technical vocabulary for the projects they are undertaking ● critically evaluate the quality of the design, manufacture and	Evaluation Suitability Specifications Scoring grid Open and Closed questions	Understanding of computer aided designs and how it promotes efficiency.	● critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make	

		fitness for purpose of their products as they design and make ● consider the views of others, including intended users, to improve their work			● consider the views of others, including intended users, to improve their work	
Building towards.. Subsequent Years: **Year 6 Art and Design:** <u>Unit8 Design/ graphic design</u> **KS3 Design and Technology:** - identify and solve their own design problems and understand how to reformulate problems given to them - develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations - use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses - develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools **KS3 Computing:** - understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits - undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users **Careers:** CAD technician/ designer, Architectural Drafter, Mechanical Engineer, Civil Engineer, Electrical Engineer, Product						

Designer, Aerospace Engineer, Interior Designer, Land Surveyor, Urban Planner, 3D Animator, Industrial Designer, Environmental Engineer, GIS Specialist (Geographical Information System), Piping Designer.	

Unit 2: Structures: Playgroup

Building Blocks:

EYFS - To understand what waterproof is and to test whether materials are waterproof.

To test and make predictions for which materials float or sink.

To compare the uses of boats.

To investigate how the shape and structures of boats affects the way they move.

To design a boat.

To create a boat based on their own design.

Year 1- Follow design criteria to meet the needs of a user.

Make a stable structure.

Make functioning sails/blades that attach to the supporting structure.

Improve their windmill.

Year 2- Identify man-made and natural structures.

Identify stable and unstable structural shapes.

Contribute to discussions.

Identify features that make a chair stable.

Work independently to make a stable structure, following a demonstration.

Explain how their ideas would be suitable for Baby Bear.

Produce a model that supports a teddy, using the appropriate materials and construction techniques.

Explain how they made their model strong, stiff and stable.

Year 3- Draw and label a simple castle that includes the most common features.

Recognise that a castle is made up of multiple 3D shapes.

Design a castle with key features which satisfy a given purpose.

Score or cut along lines on the net of a 2D shape.
Use glue to securely assemble geometric shapes.
Utilise skills to build a complex structure from simple geometric shapes.
Evaluate their work by answering simple questions.

Year 4- Produce a range of free-standing frame structures of different shapes and sizes.
Design a pavilion that is strong, stable and aesthetically pleasing.
Select appropriate materials and construction techniques to create a stable, free-standing frame structure.
Select appropriate materials and techniques to add cladding to their pavilion.

Year 5: Identify stronger and weaker shapes.
Recognise that supporting shapes can help increase the strength of a bridge, allowing it to hold more weight.
Cut beams to the correct size, using a cutting mat.
Smooth down any rough cut edges with sandpaper.
Complete a bridge, with varying ranges of accuracy and finish, supported by the teacher.
Identify some areas for improvement, reinforcing their bridges as necessary.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed

1	**How do you design a playground with a variety of structures?**	**Pupils will learn:** To design a playground with a variety of structures.	• apparatus • design criteria • equipment • landscape features • plan view • playground	- To identify different types of structures used in playgrounds as apparatus. - To consider how the structures can be used. -To design five different pieces of apparatus using three different structures. -To improve their design based on peer evaluation.	• Design • Evaluate • Describe the purpose of their product • Understand the context and users. • Annotate sketches and diagrams.	• -A4 plain paper (one each). • - A3 card (one each). •
2	**How can I build a range of structures?**	**Pupils will learn** To build a range of structures.	• bench hook • mark out • modify • prototype • reinforce • tenon saw • user	**Pupils will learn** - To build play apparatus structures using the techniques demonstrated as well as prior knowledge of structures.	• -Make. • - Select from a range of tools and equipment. • - Selecting from a range of materials • -Apply knowledge on	• -Ruler • -Scissors • -Jelutong and/or dowel • -Tenon saws and bench hooks or coping saws and vices

				-To explain that structures can be strengthened by manipulating materials and shapes. -To measure, mark, cut and shape wood to create a range of structures.	how to work safely. ● - Assemble, join and combine materials. ● - APply accurate measuring, marking out and cutting.	● -Lolly sticks or toothpicks. ● - Straws, string, pipe cleaners and card. ● -Foil, egg boxes, cardboard tubes and other junk modelling materials ● - PVA glue or glue guns
3	**Can I improve and add detail to structures?**	**Pupils will learn** To improve and add detail to structures.	● Cladding, ● dowel, ● Jelutong, ● reinforce, ● structure	**Pupils will learn** - To test and adapt my design to improve it. - To identify what makes a successful structure. -To use a range of materials to reinforce and add decoration to my structures.	● Research ● Investigating existing products ● Compare and contrast ● Design ● Make ● Evaluate	○ ● -jelutong and/or dowel ● -Tenon saws and bench hooks or coping saws and vices ● -Lolly sticks or toothpicks Straws, -string, ● -pipe cleaners ● -card Foil, ● -egg boxes, ● -cardboard tubes ● modelling materials

						Range of cladding materials: foil, tracing paper, elastic bands, plastic bags, packaging, newspaper, string/wool, leaves, corrugated card/plastic
4	**How to create a surrounding landscape?**	**Pupils will learn** To create a surrounding landscape.	• Design criteria • Natural materials • Prototype • user	**Pupils will learn** • To attach structures to a base, reinforcing the join where necessary. • To consider the surrounding environment of my playground. • To create landscape features using a range of materials.	• Research • Investigating existing products • Compare and contrast • Design • Make • Evaluate	• -Straws, • - string, - • -pipe cleaners, • -egg boxes, - • lolly sticks or toothpicks • -Felt tips, paint, • - foil or coloured paper, • - Natural materials, such as sand, twigs, leaves, stones and tree bark , • -Modelling dough or sticky tac, • - Papier maché, • - A3 card bases

Building towards.. **Subsequent years:** **Careers:**	

Unit 3: Cooking

Building Blocks:

EYFS - Explore differences between fruits and vegetables.
Use five senses to explore a pumpkin.
To design a fruit and vegetable soup.
To use a knife safely.
To safely use tools to prepare ingredients.
Making a soup.
Designing soup packaging.

Year 1- Describe fruits and vegetables and explain how to identify fruits.
Name a range of places that fruits and vegetables grow.
Describe basic characteristics of fruit and vegetables.
Prepare fruits and vegetables to make a smoothie.

Year 2- Name the main food groups and identify foods that belong to each group.
Describe the taste, feel and smell of a given food.
Think of three different wrap ideas, considering flavour combinations.
Construct a wrap that meets the design brief and their plan.

Year 3- Explain that fruits and vegetables grow in different countries based on their climates.
Understand that seasonal fruits and vegetables grow in a given season.
Understand that eating seasonal fruit and vegetables positively affects the environment.

Design a tart recipe using seasonal ingredients.

Year 4- Describe features of biscuits using taste, texture and appearance.

Follow a recipe with support.

Use a budget to plan a recipe.

Adapt a recipe using additional ingredients.

Year 5: Describe the process of beef production.

Research a traditional recipe and make changes to it.

Add nutritional value to a recipe by selecting ingredients.

Lesson number	Lesson question	Pupils will learn	Key Vocabulary	Substantive knowledge	Disciplinary Skills	Resources Needed
1 Cooking and nutrition - Come Dine with me- Assessment	How do complementary flavours enhance a dish?.	Pupils will learn • .To explain the use of complementary flavours.	balance bitter complement enhance pairing salty sour sweet umami	• I can identify the five basic tastes. • I can match complementary flavours. • I can explain why certain flavours work well together.	Investigate existing produces Describe the purpose of their product Select from a range of materials Evaluate	1 lemon slice 1 sugar cube 1 paper cup 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.

2	What steps are needed to research and design a balanced three-course meal?	Pupils will learn ● To research and design a three-course meal. ●	equipment flavour ingredients method research recipe	● I know how to research a recipe by ingredient. ● I understand that not all courses complement one another. ● I can list the ingredients I need for my chosen recipe. ● I can read the method and list the equipment I need for my chosen recipe.	Research Evaluate Selecting from a range of materials	Access to computers, laptops or tablets. Access to a printer A4 paper
3	What factors influence recipe choices?	Pupils will learn ● To explain recipe choices. ●	balance complement enhance pairing preparation	Pupils will learn ● I can identify and use preparation techniques needed for a recipe. ● I can explain the combinations of ingredients in a recipe.	Apply knowledge on how to work safely Design Selecting from a range of equipment Select from a range of materials	1 vegetable knife 1 box grater 1 garlic press 1 green chopping board chopping board 1 measuring jug 1 measuring scale 2 peppers 1 garlic bulb; 1 carrot 1 tin of pineapple.

				• I can seek guidance when something is unfamiliar. •		
4	In what ways can culinary skills and knowledge be applied in cooking?	**Pupils will learn** • To apply culinary skills and knowledge. •	farm to fork flavour ingredients method preparation recipe storyboard	**Pupils will learn** • 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.	Research Make Select from a range of material Apply knowledge on how to work safely	A selection of cookbooks Children's ingredient lists, equipment lists and recipes Additional ingredients and equipment as required for the starter pairs; Ten peppers Devices with internet access;

5	What steps are involved in making a main course using salmon?	**Pupils will learn** ● To apply culinary skills and knowledge.	farm to fork flavour ingredients method preparation recipe	● 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.	Make Apply accurate measures, making and cutting out	

6	How can culinary skills and knowledge be applied in cooking?	**To apply culinary skills and knowledge.**	farm to fork flavour ingredients method preparation recipe storyboard	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.		A variety of cookbooks; Children's ingredient lists, equipment lists and recipes Tins of pineapple slices
Building towards.. **KS3 Healthy Eating & Nutrition , Food Science, Cooking Techniques, Sustainability & Food Ethics, Cultural & International Cuisines.**						

Careers: 1. Food & Hospitality Industry

- Chef – Creating and preparing dishes in restaurants, hotels, or catering.
- Baker/Pastry Chef – Specializing in bread, cakes, and pastries.
- Caterer – Planning and cooking meals for events, schools, or businesses.
- Restaurant Manager – Overseeing a restaurant's operations, menu planning, and customer service.

2. Nutrition & Health

- Dietitian/Nutritionist – Advising people on healthy eating and balanced diets.
- Food Scientist – Developing and testing food products for safety and nutrition.
- Sports Nutritionist – Creating meal plans for athletes to improve performance.
- Health Coach – Guiding individuals on diet, fitness, and overall wellness.

3. Food Media & Innovation

- Food Blogger/Vlogger – Sharing recipes, reviews, and cooking tips online.
- Food Photographer – Capturing images for cookbooks, magazines, and websites.
- Recipe Developer – Creating and testing new recipes for brands or publications.
- TV Chef/Food Presenter – Hosting cooking shows and teaching culinary skills.

4. Science & Sustainability

- Food Technologist – Developing new food products and ensuring quality control.
- Agricultural Scientist – Researching better ways to grow food sustainably.
- Environmental Health Officer – Ensuring food safety standards in restaurants and food production.
- Food Waste Reduction Specialist – Finding solutions to reduce food waste in homes and businesses.

5. Education & Community Work

- Food Teacher – Teaching cooking and nutrition in schools.
- Community Nutritionist – Educating people about affordable, healthy eating.
- School Chef – Preparing nutritious meals for students in schools.

Credit : Kapow Primary!