



Holy Family Catholic Primary School

Design Technology Curriculum 2026-2027

What do we want for our pupils?

Intent

At Holy Family, we value Design Technology as an integral part of our children's right to a broad and balanced curriculum. The teaching of Design Technology is developed to build on children's prior learning and provide opportunities to be creative through curricular and cross-curricular topics. Children are enabled to develop a creative mind-set, become innovative designers and have the opportunity to critically evaluate their own work so they can develop their resilience, confidence and critical thinking skills through working independently and collaboratively with others. The problem solving and critical thinking skills acquired through design technology lessons can be used across the whole school curriculum and taken into life outside the classroom.

Implementation

At Holy Family, we teach the National Curriculum 2014 and Expressive Arts and Design- Creating with Materials in the Early Years framework. This is delivered through the Kapow Design Technology scheme that is combined with the Kapow Art and Design scheme. Our Design Technology curriculum at Holy Family is tailored to be delivered through the entirety of the school with lessons delivered regularly throughout the timetable when Design Technology is the driver topic, this is in rotation with Art and Design. Lessons are progressive and taught systematically to deliver the content of the National Curriculum while addressing the needs of the children within our school. Topics are planned through long term planning and feed into the medium term planning for each term. This ensures that the skills children learn are built upon each year so that they can be maintained and utilised through cross-curricular links. Through the teaching of Design Technology, the children at Holy Family will explore a variety of skills associated with textiles, cooking and nutrition, structure, mechanisms, mechanical and electrical systems and control and monitoring. Planning ensures a 'Journey of Learning' that incorporates a skills inquiry where children can learn more about the uses of a product and how it works, an exploration of design where children think critically about their design to a real-world problem and have the opportunity to design their own product and finally, children are provided with the opportunity to implement their design and critically evaluate their final product. Knowledge, skills and vocabulary is taught progressively throughout school in line with other curricular subjects.

What is our goal?

Impact

By the time the children at Holy Family leave our school they should have developed the skills to:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Assessment in Design Technology

Assessment Questions

Teachers make regular assessments of each child's progress and record these using O Track.

Formative assessment opportunities are provided through:

- analysis of children's work
- peer assessment
- questioning
- discussions

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		Textiles Simple stitches		Mechanisms Wheels and axles		Structures Stable structure
Year 2		Structures A chair for a bear (London Bridge)		Mechanisms Levers		Cooking Balanced Diet
Year 3		Cooking Eating Seasonally		Textiles Egyptian Collars		Structures Product packaging Linked to landmarks
Year 4		Cooking Adapting a Recipe		Mechanical systems Mechanical cars		Electrical Systems Exploring electrical products
Year 5	Electrical systems Wobble bots	Mechanical Systems Gears and pulleys Linked to forces				Structure Bridges
Year 6		Cooking Come Dine With Me		Digital world Navigating the world		Textiles bags

Pupils in KS1 will learn to:

Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria.
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate

- explore and evaluate a range of existing products ☐ evaluate their ideas and products against design criteria.

Technical knowledge.

- build structures, exploring how they can be made stronger, stiffer and more stable ☐ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking

- use the basic principles of a healthy and varied diet to prepare dishes ☐ understand where food comes from.

Pupils in KS2 will learn to:

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 .
- 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 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

- 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.
- understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] .
- apply their understanding of computing to program, monitor and control their products.

Cooking

- understand and apply the principles of a healthy and varied diet ? 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.

Year 1	Autumn 2— Textiles	Spring 2 — Mechanisms	Summer 2— Structures
Simple stitches		Wheels and axles	Stable structures
Pupils will learn to: Design - Stating what they intend to make and why – identifying the purpose. - Talking about ideas, with purpose and user in mind. - Using basic drawing skills to communicate ideas. Make - Choosing between a small number of materials, ingredients or components. - Explaining their choices based on personal experiences. - Explaining in simple terms why certain tools must be handled carefully. - Following and recalling simple safety instructions. - Using a straightedge to draw a straight line. - Beginning to use objects with a fixed width or length to create even spacing of markings or cuts. (e.g. a lolly stick). - Using a large plastic needle and large-weave embroidery fabric to begin to create a running stitch. - Applying masking tape to fix something in place or join to edges. - Adding texture to create visual interest.	Pupils will learn to: Design - Thinking about what others might want from a design. - Beginning to recognise how products and designs in the world around us solve certain needs. - Considering who they are designing for – by identifying the user. - Stating what they intend to make and why – by identifying the purpose. - Talking about ideas with purpose and user in mind. - Talking about existing products when generating ideas. - Using basic drawing skills to communicate ideas. Make - Planning more than one step ahead. - Choosing between a small number of materials, ingredients or components. - Explaining their choices based on personal experiences. - Requesting equipment appropriate to the purpose (e.g. scissors for cutting and glue for joining). - Explaining in simple terms why certain tools must be handled carefully.	Pupils will learn to: Design - Thinking about what others might want from a design. - Beginning to recognise how products and designs in the world around us solve certain needs. - Considering who they are designing for – identifying the user. - Stating what they intend to make and why – identifying the purpose. - Talking about ideas, with purpose and user in mind. - Talking about existing products when generating ideas. - Using basic drawing skills to communicate ideas. Make - Choosing between a small number of materials, ingredients or components. - Explaining their choices based on personal experiences. - Requesting equipment appropriate to the purpose (e.g. scissors for cutting, glue for joining, etc.). - Beginning to use objects with a fixed width or length to create even spacing of markings or cuts (e.g. a lolly stick).	

Evaluate - Saying what they like about their peers' designs and products. - Accepting feedback and understanding it is meant to improve their work.	- Following and recalling simple safety instructions. - Finding the middle of an object. - Refining their grip to cut competently and confidently. - Cutting straight lines and evenly spaced lines. - Beginning to cut large shapes and thicker materials like card. - Using tools, like scissors, to create shapes. - Beginning to use controlled painting or colouring techniques to finish a product. - Adding texture to create visual interest. Evaluate - Discussing existing products, saying what they like about them. - Comparing two products and discussing which is better for a specific purpose. - Discussing how their products could be improved based on personal preferences. - Comparing their finished products with their original designs. - Saying what they like about their peers' designs and products. - Accepting feedback and understanding it is	- Refining their grip to cut competently and confidently. - Cutting straight and evenly spaced lines. - Beginning to cut large shapes and thicker materials like card. Evaluate - Discussing existing products, saying what they like about them. - Comparing two products and discussing which is better for a specific purpose. - Saying what they like about their peers' designs and products. - Accepting feedback and understanding it is meant to improve their work. - Technical knowledge - Recognising that different structures are used for different purposes. - Exploring the features of structures. - Describing structures as buildings or freestanding structures. - Making stable structures from card. - Creating supporting structures to aid stability. - Using stable objects like cylinders to create structures.
<u>Vocabulary</u> even, fabric, thread, weave, needle safety, space, stitch, straight line, tools, design, sketch, choose, texture, feedback, like	<u>Vocabulary</u> axle, axle holder, better, careful, choose, compare, design, dislike, like, mechanism, movement, product, straight line, tool, turn, user, wheel, worse	<u>Vocabulary</u> base, narrow, stable, structure, unstable, wide, freestanding, height, tower, better, compare, weight, worse, design, product, user, like, dislike, cut, even, explain, join

Year 2	Autumn 2— Structures	Spring 2 — Mechanisms	Summer 2— Cooking
A chair for a bear—London Bridge		Levers	Balanced Diet
Pupils will learn to: Design • Generate and communicate ideas using sketching and modelling. • Learn about different types of structures, found in the natural world and in everyday objects. Make • Make a structure according to design criteria. Create joints and structures from paper/card and tape. • Build a strong and stiff structure by folding paper. Evaluate • Explore the features of structures. • Compare the stability of different shapes. • Test the strength of own structures. • Identify the weakest part of a structure. • Evaluate the strength, stiffness and stability of own structure. Knowledge • To know that shapes and structures with wide, flat bases or legs are the most stable.		Pupils will learn to: Design • Creating ideas with design criteria in mind. • Referring to specific parts of existing products when generating ideas. • Using labels to explain parts of a design, label materials etc, including using ICT. • Integrating moving parts when creating mock-ups. Make • Integrating moving parts when creating mock-ups. • Planning more than one step ahead. • Choosing materials or components from a wider range of materials or components. • Choosing between pieces of equipment that are used for the same purpose (e.g. joining) and explaining why their choice suits the task. • Explaining their choices based on the properties of materials and components. • Following and recalling simple safety instructions.	
		Pupils will learn to: Design • Design a healthy wrap based on a food combination which work well together. Make • Slicing food safely using the bridge or claw grip. • Construct a wrap that meets a design brief. Evaluate • Describe the taste, texture and smell of fruit and vegetables. • Taste testing food combinations and final products. Describe the information that should be included on a label. • Evaluate which grip was most effective. Knowledge • To know that ‘diet’ means the food and drink that a person or animal usually eats. • To understand what makes a balanced diet. • To know where to find the nutritional information on packaging.	

• To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts. • To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily	Evaluate • Discussing whether they were able to use the tools and techniques effectively. • Comparing a range of products and explaining why some better meet different design criteria than others. • Evaluating their ideas and creations against simple design criteria. Technical knowledge • Recognising and exploring everyday objects that have mechanisms. • Exploring everyday objects that use levers (e.g scissors, tongs, door handle, stapler).	• To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. • To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. • To know that nutrients are substances in food that all living things need to make energy, grow and develop. • To know that 'ingredients' means the items in a mixture or recipe. • To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. • To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'.
<u>Vocabulary</u> Function, Man-made, Mould, Natural, Stable, Stiff, Strong, Structure, Test, Weak	<u>Vocabulary</u> curved, direction, evaluate, label, lever, material, mechanism, pivot, purpose, rotate, select	<u>Vocabulary</u> Alternative, Diet, Balanced diet, Evaluation, Expensive, Healthy, ingredients, Nutrients, Packaging, Refrigerator, Sugar, Substitute

Year 3	Autumn 2— Cooking	Spring 2— Textiles	Summer 2— Structures
Eating Seasonally		Egyptian Collar	Product packaging
Pupils will learn to: Design - Create a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish. Make - Know how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. - Follow the instructions within a recipe. Evaluate - Establish and use design criteria to help test and review dishes. - Describe the benefits of seasonal fruits and vegetables and the impact on the environment. Suggest points for improvement when making a seasonal tart. Knowledge To know that not all fruits and vegetables can be grown in the UK. To know that climate affects food growth.		Pupils will learn to: Design - Design and make a template from an existing cushion and applying individual design criteria. Make - Follow design criteria to create a cushion or Egyptian collar. - Select and cut fabrics with ease using fabric scissors. - Thread needles with greater independence. - Tie knots with greater independence. - Sew cross stitch to join fabric. - Decorate fabric using appliqué. - Complete design ideas with stuffing and sewing the edges (Cushions) or embellishing the collars based on design ideas (Egyptian collars). Evaluate - Evaluate an end product and thinking of other ways in which to create similar items.	
		Pupils will learn to: Design - Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. - Beginning to use 2D CAD software to communicate their ideas. (sketchpad) Make - Creating accurate shapes from templates. - Choosing shapes to suit the function of a product. - Cutting out more complex shapes accurately. Evaluate - Explaining why they think certain aspects of a peer’s design are effective or why they suggested specific improvements. - Reflecting on feedback to decide if and how it could be used to improve future iterations. - Investigating and analysing a range of existing products by looking at their functionality and appeal.	

• To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country. • To understand that imported foods travel from far away and this can negatively impact the environment. • To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre. • To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. • To know safety rules for using, storing and cleaning a knife safely. • To know that similar coloured fruits and vegetables often have similar nutritional benefits.	Knowledge • To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces. • To know that when two edges of fabric have been joined together it is called a seam. • To know that it is important to leave space on the fabric for the seam. • To understand that some products are turned inside out after sewing so the stitching is hidden.	Technical knowledge • Beginning to understand how different structures are built. • Strengthening structures by ribbing. • Constructing a range of 3D shapes.
<u>Vocabulary</u> Climate, Dry climate, Exported, Imported, Mediterranean climate, Nationality, Nutrients, Polar climate, Recipe, Seasonal food, Seasons, Temperate climate, Tropical climate	<u>Vocabulary</u> Accurate, Applique, Cross-stitch, Cushion, Decorate, Detail, Fabric, Patch, Running-stitch, Seam, Stencil, Stuffing, Target audience, Target customer, Template	<u>Vocabulary</u> Form, net, three-dimensional, accurate, computer-aided design (CAD), sustainable, tab, feedback, reinforce, shell structure, strengthen

Year 4	Autumn 2— Cooking	Spring 2— Mechanical Systems	Summer 2— Electrical Systems
Adapting a Recipe		Mechanical cars	Exploring electrical products
Pupils will learn to: Design - Design a biscuit within a given budget, drawing upon previous taste testing judgements. Make - Follow a baking recipe, from start to finish, including the preparation of ingredients. - Cook safely, following basic hygiene rules. - Adapt a recipe to improve it or change it to meet new criteria (e.g. from savoury to sweet). Evaluate - Evaluate a recipe, considering: taste, smell, texture and appearance. - Describe the impact of the budget on the selection of ingredients. - Evaluate and compare a range of food products. Suggest modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart, so next time I will use less raisins).		Pupils will learn to: Design - Taking part in structured idea generation sessions. - Developing drawing and sketching skills with a focus on clarity and simplicity. - Beginning to recognise the benefit of a range of diagram types or prototypes to communicate ideas. (e.g. sketches, cross-sectional diagrams, thumbnail sketches and exploded diagrams). - Creating prototypes using materials with similar properties to their final design. - Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. - Developing designs by adding details and justifications about materials, tools and methods. Make - Following detailed safety instructions. - Using a ruler as a measuring tool with increasing accuracy by creating spaced marks using millimetres and measuring lengths of objects.	Pupils will learn to: Design - Design a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. Make - Make a torch with a working electrical circuit and switch. - Use appropriate equipment to cut and attach materials. - Assembling a torch according to the design and success criteria. Evaluate - Evaluate electrical products. - Test and evaluate the success of a final product.

Knowledge • To know that the amount of an ingredient in a recipe is known as the 'quantity.' • To know that it is important to use oven gloves when removing hot food from an oven. • To know the following cooking techniques: sieving, creaming, rubbing method, cooling. • To understand the importance of budgeting while planning ingredients for biscuits	• Handle different sizes and types of scissors with confidence. • With close supervision, using a hot glue gun to join wooden materials (e.g. lolly sticks). • Selecting equipment required for a series of tasks based on the plan and explaining why each piece is suitable for each stage. Evaluate • Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. • Reflecting on feedback to decide if and how it could be used to improve future iterations. • Investigating and analysing a range of existing products by looking at their functionality and appeal. • Analysing why specific products, designers or inventors are successful. • Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. • Evaluating how effective their chosen materials and tools were in fulfilling the design brief.	Knowledge • To understand that electrical conductors are materials which electricity can pass through. • To understand that electrical insulators are materials which electricity cannot pass through. • To know that a battery contains stored electricity that can be used to power products. • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit.
<u>Vocabulary</u> Adapt, Budget, Cooling rack, Creaming, Equipment, Evaluation, Flavour, Ingredients, Method, Net, Packaging, Prototype, Quantity, Recipe, Rubbing, Sieving, Target audience, Unit of measurement, Utilities	<u>Vocabulary</u> Bearing, chassis, force, machine, mechanism, prototype, target audience, distance, inclined plane, biodegradable, durable, exploded diagram, non-renewable, recycled, renewable, sustainable, absorbent, flexible, rigid, waterproof, cost-benefit analysis, design criteria, market research, problem statement, feedback, target audience	<u>Vocabulary</u> Battery, Bulb, Buzzer, Cell, Component, Conductor, Copper, Design criteria, Electrical item, Electricity, Electronic item, Function, Insulator, Series circuit, Switch, Test, Torch, Wire

Year 5	Autumn 1— Electrical systems	Autumn 2— Mechanical systems	Summer 2— Structures
Wobble bots		Gears and pulleys	Bridges (towers)
Pupils will learn to: Design - Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. - Developing more independence in generating ideas. - Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about the practicality and originality of their ideas. - Using a series of prototypes to refine and improve their designs. Make - Producing lists of equipment, materials and tools that they need for a task. - Creating a step-by-step plan for making. - Selecting materials, components or ingredients based on research or user needs. - Explaining their choices, referring to their research. - Understanding and explaining the importance of each safety rule. - Applying safety instructions consistently.		Pupils will learn to: Design - Noticing wider-reaching problems or needs in the community. - Identifying a wide range of needs and potential barriers through market research. - Writing more complex problem statements that consider multiple factors and constraints. - Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. - Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. - Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design. - Using a series of prototypes to refine and improve their designs. Make - Consistently apply safety instructions. - Select appropriate scissors to handle delicate cutting tasks and challenging materials.	Pupils will learn to: Design - Design a pop-up book which uses a mixture of structures and mechanisms. - Name each mechanism, input and output accurately. - Storyboard ideas for a book. Make - Follow a design brief to make a pop up book, neatly and with focus on accuracy. - Make mechanisms and/or structures using sliders, pivots and folds to produce movement. - Use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. Evaluate - Evaluate the work of others and receiving feedback on own work. - Suggest points for improvement.

• Balancing aesthetics and functionality when creating parts of a design. • Considering when best to apply finishing effects. Evaluate • Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. • Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. • Considering alternative materials, tools or techniques that could enhance the product. • Providing feedback that is helpful, specific and encouraging. • Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they had.	• Cutting patterns and drawings accurately. • In supervised groups, using hot glue guns safely. • Recognising that hot glue is useful for joining materials that need a strong bond that sets quickly. • Choosing PVA glue over hot glue for its safety when joining materials in less intensive projects. Evaluate • Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. • Considering alternative materials, tools or techniques that could enhance the product. • Providing feedback that is helpful, specific, and encouraging. • Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they	Knowledge • To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots and folds to create paper-based mechanisms.
<u>Vocabulary</u> battery, charge, circuit, electrical components, electricity, flow, motor, product, risk, wire, off-centre, improve, investigate, label, sketch, trial and error, annotate, design brief, design criteria, diagram, purpose, thumbnail sketch, user, assemble, evaluate	<u>Vocabulary</u> Force, gear, gear system, input, machine, mechanism, output, axle, teeth, pulley, pulley system, market research, problem statement, renewable energy, research, sustainability, annotate	<u>Vocabulary</u> Aesthetic, Computer-aided design (CAD), Caption, Design, Design brief, Design criteria, Exploded-diagram, Function, Input, Linkage, Mechanism, Motion, Output, Pivot, Prototype, Slider, Structure, Template

Year 6	Autumn 2— cooking	Spring 2— Digital World	Summer 2— Textiles
Come dine with me		Navigating the world	Bags
Pupils will learn to: Design - Write a recipe, explaining the key steps, method and ingredients. - Include facts and drawings from research undertaken. Make - Follow a recipe, including using the correct quantities of each ingredient. - Adapt a recipe based on research. - Work to a given timescale. - Work safely and hygienically with independence. Evaluate - Evaluate a recipe, considering: taste, smell, texture and origin of the food group. - Taste test and score final products. - Suggest and write up points of improvements when scoring others’ dishes, and when evaluating their own throughout the planning, preparation and cooking process. - Evaluate health and safety in production to minimise cross contamination.	Pupils will learn to: Design - Write a design brief from information submitted by a client. - Develop design criteria to fulfil the client’s request. Consider and suggest additional functions for my navigation tool. - Develop a product idea through annotated sketches. - Place and manoeuvre 3D objects, using CAD. Changing the properties of, or combining one or more 3D objects, using CAD. Make - Consider materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo). Explain material choices and why they were chosen as part of a product concept. - Program an N,E, S, W cardinal compass. Evaluate - Explain how a program fits the design criteria and how it would be useful as part of a navigation tool. Develop an awareness of sustainable design. Identify key industries that utilise 3D CAD modelling and explaining why.	Pupils will learn to: Design - Different materials have different costs. - Original and innovative ideas are different from what has been made before. - Drawings and diagrams can be communicated in 3D. - Improving on prototypes can help to improve the final design. Make - Materials and equipment lists help to plan better. - Aesthetics are the way something looks. - Research can help decide which materials are best for both aesthetics and functional properties. - Risks are things that might go wrong. - Different measuring tools can be useful depending on what is being measured. - The shape of an object can affect both its aesthetics and function. - Aesthetics is how something looks. - Nets can be folded to create 3D shapes. - Texture can provide functional properties as well as aesthetic.	

Knowledge • To know that ‘flavour’ is how a food or drink tastes. • To know that many countries have ‘national dishes’ which are recipes associated with that country. • To know that ‘processed food’ means food that has been put through multiple changes in a factory. • To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).	• Describe how the product concept fits the client’s request and how it will benefit the customers. Explain the key functions in my program, including any additions. • Explain how a program fits the design criteria and how it would be useful as part of a navigation tool. • Explain the key functions and features of my navigation tool to the client as part of a product concept pitch. • Demonstrate a functional program as part of a product concept pitch. Knowledge • To know that accelerometers can detect movement. • To understand that sensors can be useful in products as they mean the product can function without human input.	Evaluate • Sustainability means thinking about the materials that were used to make a product and how the product was made. • Looking at other designers’ work can help inform designs. • Their final product can still be improved by using different materials or techniques. • Evaluating their designs in detail will help them understand its successful and less successful parts. • Explaining how they used feedback to improve their design can help them create better products in the future. Technical knowledge • Using a template (or clothing pattern) helps to accurately mark out a design on fabric. • Complete products are sometimes made in parts that are sewn together. • Consistently sized stitches improve the aesthetic of a product.
<u>Vocabulary</u> Accompaniment, Collaboration, Cookbook, Cross-contamination, Equipment, Farm, Flavour, Illustration, Imperative-verb, Ingredients, Method, Nationality, Preparation, Processed, Reared, Recipe, Research, Storyboard, Target audience, Top tips, Unit of measurement	<u>Vocabulary</u> 3D CAD, Application (apps), Biodegradable, Boolean, Cardinal compass, Client, Concept, Convince, Corrode, Duplicate, Environmentally friendly, Equipment, Feature, Finite, Function, Functional, GPS tracker, If statement, Infinite, Investment, Lightweight, Loop, Manufacture, Mouldable, Navigation, Non-recyclable, Product lifecycle, Product lifespan, Program, Recyclable, Smart, Sustainable, Sustainable design,	<u>Vocabulary</u> pattern piece, seam, seam allowance, blanket stitch, cross-stitch, fabric, pattern piece, running stitch, seam, seam allowance, properties, prototype, user, aesthetic, innovative, functionality