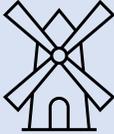
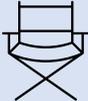
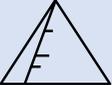




Design Technology Curriculum Map

	Autumn	Spring	Summer	
Year 1	Food and Nutrition – Fruit and Vegetables 	Structures – To construct a windmill 	Textiles - Puppets 	Mechanisms – Wheels and axels 
Year 2	Food and Nutrition – A Balanced Diet 	Structures – Goldilocks making the chair stronger 	Mechanisms – making a moving monster 	Textiles – pouches 
Year 3	Food and Nutrition - Eating Seasonally 	Mechanical Systems – Mechanical Posters 	Structure – Castles/Pyramids 	
Year 4	Food and Nutrition – Adapting a recipe 	Electrical Systems – Torches 	Textiles – Sewing Roman Purses 	
Year 5	Food and Nutrition – What could be healthier 	Mechanical Systems – Mechanical toys 	Structures – Bridges 	
Year 6	Food and Nutrition – Come Dine with Me 	Digital World – Navigate the World (Microbits) 	Textiles – Sewing Mobile Phone Cases 	
Food and Nutrition		Structures	Mechanisms	Textiles
Electrical Systems			Digital	

National Curriculum Objectives KS1

Design	Make	Evaluate
<p>1) Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>2) Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>1) Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>2) Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>1) Explore and evaluate a range of existing products.</p> <p>2) Evaluate their ideas and products against design criteria</p>
Technical knowledge		
<ul style="list-style-type: none"> • 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 and nutrition		
<ul style="list-style-type: none"> • Use the basic principles of a healthy and varied diet to prepare dishes. • Understand where food comes from. 		

Year 1

Term	Module	Design	Make	Evaluate	Technical knowledge	
Autumn	Food and Nutrition – Fruit and Vegetables	<ul style="list-style-type: none"> ➤ Design packaging and suggest information to be on there. 	<ul style="list-style-type: none"> ▪ Chopping fruit and vegetables safely to make a smoothie. ▪ Juicing fruits safely to make a smoothie. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that a blender is a machine which mixes ingredients together into a smooth liquid. ○ To know that a fruit has seeds. ○ To know that fruits grow on trees or vines. ○ To know that vegetables can grow either above or below ground. ○ To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber). 	Blender • Fruit • Healthy • Ingredients • Recipe • Smoothie • Vegetable • Seed • Root • Leaf • Stem • Flavour • Design • Cut • Juice • Table knife • Juicer • Plant • Bush • Tree • Vine • Chopping board • Fork • Taste • Select • Blend • Evaluate • Compare
Spring	Structures – To construct a windmill	<ul style="list-style-type: none"> ➤ Learning the importance of a clear design criteria. ➤ Including individual preferences and requirements in a design 	<ul style="list-style-type: none"> ▪ Making stable structures from card, tape and glue ▪ Learning how to turn 2D nets into 3D structures. ▪ Following instructions to cut and assemble the supporting structure of a windmill. ▪ Making functioning turbines and axles which are assembled into a main supporting structure. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To understand that the shape of materials can be changed to improve the strength and stiffness of structures. To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). ○ To understand that axles are used in structures and mechanisms to make parts turn in a circle. ○ To begin to understand that different structures are used for different purposes. ○ To know that a structure is something that has been made and put together 	previously taught Client Design Evaluation Net Stable Strong Test Weak Windmill

Additional Knowledge

To know that a client is the person I am designing for.

To know that design criteria is a list of points to ensure the product meets the clients needs and wants.

To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity.

To know that windmill turbines use wind to turn and make the machines inside work.

To know that a windmill is a structure with sails that are moved by the wind.

To know the three main parts of a windmill are the turbine, axle and structure

Summer 1	Textiles – Puppets	<ul style="list-style-type: none"> ➤ Using a template to create a design for a puppet. 	<ul style="list-style-type: none"> ▪ Cutting fabric neatly with scissors. ▪ Using joining methods to decorate a puppet. ▪ Sequencing steps for construction. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that ‘joining technique’ means connecting two pieces of material together. ○ To know that there are various temporary methods of joining fabric by using staples. glue or pins. ○ To understand that different techniques for joining materials can be used for different purposes. ○ To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. ○ To know that drawing a design idea is useful to see how an idea will look. 	<p>previously taught</p> <ul style="list-style-type: none"> Decorate • Design • Fabric • Glue • Model • Hand puppet • Safety pin • Staple • Stencil • Template
Summer 2	Mechanisms – Wheels and axels (Make a fire engine)	<ul style="list-style-type: none"> ➤ Designing a vehicle that includes wheels, axles and axle holders, that when combined, will allow the wheels to move. ➤ Creating clearly labelled drawings that illustrate movement. 	<p>Adapting mechanisms, when:</p> <ul style="list-style-type: none"> ▪ they do not work as they should. ▪ to fit their vehicle design. ▪ to improve how they work after testing their vehicle. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that wheels need to be round to rotate and move. ○ To understand that for a wheel to move it must be attached to a rotating axle. ○ To know that an axle moves within an axle holder which is fixed to the vehicle or toy. ○ To know that the frame of a vehicle (chassis) needs to be balanced. <p>Additional Knowledge</p> <ul style="list-style-type: none"> ○ To know some real-life items that use wheels such as wheelbarrows, hamster wheels and vehicles. 	<ul style="list-style-type: none"> Axle • Axle holder • Chassis • Design • Evaluation • Fix • Mechanic • Mechanism • Model • Test • Wheel

Year 2

Term	Module	Design	Make	Evaluate	Technical knowledge	
Autumn	Food and Nutrition – A Balanced Diet	<ul style="list-style-type: none"> ➤ Designing three wrap ideas based on a food combination which work well together. 	<ul style="list-style-type: none"> ▪ Chopping foods safely to make a wrap. ▪ Constructing a wrap that meets a design brief. ▪ Grating foods to make a wrap. ▪ Snipping smaller foods instead of cutting. 	<ul style="list-style-type: none"> ✓ Describing the taste, texture and smell of fruit and vegetables. ✓ Taste testing food combinations and final products. ✓ Describing the information that should be included on a label. ✓ Evaluating food by giving a score. 	<ul style="list-style-type: none"> ○ 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 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 ‘ingredients’ means the items in a mixture or recipe. 	<ul style="list-style-type: none"> • Appearance • Balanced • Carbohydrates • Combination • Dairy • Design • Design brief • Diet • Feel • Grate • Grater • Menu • Oils • Prepare • Proteins • Review • Scissors • Smell • Snip • Spread • Spreads
Spring	Structures – Goldilocks making the chair stronger	<ul style="list-style-type: none"> ➤ Generating and communicating ideas using sketching and modelling. ➤ Learning about different types of structures, found in the natural world and in everyday objects. 	<ul style="list-style-type: none"> ▪ Making a structure according to design criteria. ▪ Creating joints and structures from paper/card and tape. ▪ Building a strong and stiff structure by folding paper. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that shapes/structures with wide, flat bases/legs are most stable. ○ 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/ material does not bend easily. <p>Additional Knowledge</p> <ul style="list-style-type: none"> ○ To know that natural structures are those found in nature. ○ To know that man-made structures are those made by people 	<ul style="list-style-type: none"> • Function • Man-made • Mould • Natural • Stable • Stiff • Strong • Structure • Test • Weak

Summer 1	Mechanisms – making a moving monster	<ul style="list-style-type: none"> ➤ Creating a class design criteria for a moving monster. ➤ Designing a moving monster for a specific audience in accordance with a design criteria. 	<ul style="list-style-type: none"> ▪ Making linkages using card for levers and split pins for pivots. ▪ Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. Cutting and assembling components neatly. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. ○ To know that there is always an input and output in a mechanism. ○ To know that an input is the energy that is used to start something working. ○ To know that an output is the movement that happens as a result of the input. ○ To know that a lever is something that turns on a pivot. ○ To know that a linkage mechanism is made up of a series of levers. ○ To know some real-life objects that contain mechanisms. 	<p>Evaluation ● Input ● Lever ● Linear motion ● Linkage ● Mechanical ● Mechanism ● Motion ● Oscillating motion ● Output ● Pivot ● Reciprocating motion ● Rotary motion ● Survey</p>
Summer 2	Textiles - pouches	<ul style="list-style-type: none"> ➤ Designing a pouch. 	<ul style="list-style-type: none"> ▪ Selecting and cutting fabrics for sewing. ▪ Decorating a pouch using fabric glue or running stitch. ▪ Threading a needle. ▪ Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. ▪ Neatly pinning and cutting fabric using a template. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that sewing is a method of joining fabric. ○ To know that different stitches can be used when sewing. ○ To understand the importance of tying a knot after sewing the final stitch. ○ To know that a thimble can be used to protect my fingers when sewing. 	<p>Accurate ● Fabric ● Knot ● Pouch ● Running-stitch ● Sew ● Shape ● Stencil ● Template ● Thimble</p>

National Curriculum Objectives KS2

Design	Make	Evaluate
<p>1) 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</p> <p>2) generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	<p>1) select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>2) 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</p>	<p>1) investigate and analyse a range of existing products</p> <p>2) evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>3) understand how key events and individuals in design and technology have helped shape the world</p>
Technical knowledge		
<ul style="list-style-type: none"> • 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 and nutrition		
<ul style="list-style-type: none"> • 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 3

Term	Module	Design	Make	Evaluate	Technical knowledge	
Autumn	Food and Nutrition - Eating Seasonally	<ul style="list-style-type: none"> ➤ Designing a recipe for a savoury tart. 	<ul style="list-style-type: none"> ▪ Following the instructions within a recipe. ▪ Tasting seasonal ingredients. ▪ Selecting seasonal ingredients. ▪ Peeling ingredients safely. ▪ Cutting safely with a vegetable knife. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part 	<ul style="list-style-type: none"> ○ To know that not all fruits and vegetables can be grown in the UK. ○ To know that climate affects food growth. ○ 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 know that eating seasonal foods can have a positive impact on the environment. ○ To know that similar coloured fruits and vegetables often have similar nutritional benefits. ○ To know that the appearance of food is as important as taste. 	<ul style="list-style-type: none"> Arid ● Climate ● Complementary ● Country ● Export ● Import ● Mediterranean ● Mock-up ● Mountain ● Peel ● Polar ● Seasonal ● Seasons ● Snip ● Temperate ● Texture ● Tropical ● Weather
Spring	Mechanical Systems – Mechanical Posters	<ul style="list-style-type: none"> ➤ Investigate mechanical systems ➤ Develop design criteria to help design an innovative product ➤ Use sketches to develop and communicate ideas 	<ul style="list-style-type: none"> ▪ Make mechanical systems which use levers and linkages ▪ Make a prototype to develop ideas ▪ Select and use the correct tools and equipment ▪ Carefully select materials and use different techniques 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part 	<ul style="list-style-type: none"> ○ To understand how mechanical systems work 	<ul style="list-style-type: none"> Design ● Brief ● Recycling ● Poster ● Lever ● Linkage ● Loose ● Prototype ● Input ● Output ● Sketch ● Fixed ● Annotate ● Pivot

Summer	Structure – Castles/Pyramids	<ul style="list-style-type: none"> ➤ Designing a castle with key features to appeal to a specific person/purpose. ➤ Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. ➤ Designing and/or decorating a castle tower on CAD software. 	<ul style="list-style-type: none"> ▪ Constructing a range of 3D geometric shapes using nets. ▪ Creating special features for individual designs. ▪ Making facades from a range of recycled materials. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part 	<ul style="list-style-type: none"> ○ To understand that wide and flat based objects are more stable. ○ To understand the importance of strength and stiffness in structures <p>Additional Knowledge</p> <ul style="list-style-type: none"> ○ To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. ○ To know that a façade is the front of a structure. ○ To understand that a castle needed to be strong and stable to withstand enemy attack. ○ To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. To know that a design specification is a list of success criteria for a product. 	<p>2D shapes ● 3D shapes ● Castle ● Pyramid ● Design criteria ● Evaluate ● Facade ● Feature ● Flag ● Net ● Recyclable ● Scoring ● Stable ● Strong ● Structure ● Tab ● Weak</p>
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Year 4

Term	Module	Design	Make	Evaluate	Technical knowledge	
Autumn	Food and Nutrition – Adapting a recipe	<ul style="list-style-type: none"> ➤ Designing a biscuit within a given budget, drawing upon previous taste testing judgements. 	<ul style="list-style-type: none"> ▪ Following a baking recipe, including the preparation of ingredients. ▪ Cooking safely, following basic hygiene rules. ▪ Adapting a recipe to meet the requirements of a target audience. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part ✓ Peer evaluation <p>Evaluating a recipe, considering: taste, smell, texture and appearance</p>	<ul style="list-style-type: none"> ○ To know that the amount of an ingredient in a recipe is known as the ‘quantity.’ ○ To know that safety/hygiene are important when cooking. ○ To know: sieving, measuring, stirring, cutting out and shaping. ○ To understand the importance of budgeting while planning ingredients for biscuits. ○ To know that products often have a target audience. 	Adapt • Addition • Budget • Buttery • Combine • Comment • Construct • Cream • Crunchy • Cuboid • Fold • Hygiene • Layout • Market research • Modify • Spoon Multiplication • Opinion • Pounds • Sieve • Sift • Target audience • Texture • Unique
Spring	Electrical Systems – Torches	<ul style="list-style-type: none"> ➤ • Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. 	<ul style="list-style-type: none"> ▪ Making a torch with a working electrical circuit and switch. ▪ Using appropriate equipment to cut and attach materials. ▪ Assembling a torch according to the design and success criteria. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part ✓ Peer evaluation 	<ul style="list-style-type: none"> ○ 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 <p>Additional Knowledge To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.</p>	Design • Bulb • battery • STEM • Inventors • Mains • Electrical system • series circuit • Parallel • Switch • Lamp • Insulator • Conductor • Component • Circuit • Symbol • Functional • Evaluate • Cross-Sectional • Annotate

Summer	Textiles – Sewing Roman Purses	<ul style="list-style-type: none"> ➤ Writing design criteria for a product, articulating decisions made. ➤ Designing a personalised book sleeve. 	<ul style="list-style-type: none"> ➤ 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. ➤ Working neatly by sewing small, straight stitches. ➤ Incorporating a fastening to a design. 	<ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part ✓ Peer evaluation 	<ul style="list-style-type: none"> ○ To know that a fastening is something which holds two pieces of material together for example a zipper, toggle, button, press stud and velcro. ○ 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. 	Criteria Fabric Fastening Fix Mock-up Stitch Template
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Year 5

Term	Module	Design	Make	Evaluate	Technical knowledge		
Autumn	Food and Nutrition – Developing a recipe	<ul style="list-style-type: none"> ➤ Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. ➤ Writing an amended method for a recipe to incorporate the relevant changes to ingredients. ➤ Designing appealing packaging to reflect a recipe. ➤ Researching existing recipes to inform ingredient choices. 	<ul style="list-style-type: none"> ▪ Cutting and preparing vegetables safely. ▪ Using equipment safely, including knives, hot pans and hobs. ▪ Knowing how to avoid cross-contamination. ▪ Following a step by step method carefully to make a recipe. 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product 	<ul style="list-style-type: none"> ○ To understand where meat comes from ○ To know that recipes can be adapted to suit nutritional and dietary requirements. ○ To know I can use a nutritional calculator to see how healthy a food is. ○ To understand that ‘cross-contamination’ means bacteria and germs have been passed onto ready-to-eat foods: it happens when these foods mix with raw meat or unclean objects. ○ To know that coloured chopping boards can prevent cross-contamination. ○ To know that nutritional information is found on food packaging. ○ To know that food packaging serves many purposes. 	<p>abattoir beef cross-contamination enhance farm ingredients nutrient preference recipe adaptation brand cut equipment</p>	<p>grate label nutrition press safety balanced cook evaluate hygiene measure nutritional value process theme</p>
Spring	Mechanical Systems – Mechanical toys	<ul style="list-style-type: none"> ➤ To investigate mechanical systems ➤ To develop design criteria to help design an innovative product ➤ To use sketches to develop and communicate ideas 	<ul style="list-style-type: none"> ▪ To make mechanical systems which use levers and linkages ▪ To use prototypes to develop ideas ▪ To select and use the correct tools and equipment accurately ▪ To carefully select materials and use different techniques 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product 	<ul style="list-style-type: none"> ○ To name the parts and functions of a lever and linkage mechanical systems 	<p>design, brief, lever, recycling, poster prototype loose sketch fixed mechanical systems adapt pivot evaluate mock up generate criteria annotate</p>	<p>input output linkage</p>

Summer	Structures – Bridges	<ul style="list-style-type: none"> ➤ Designing a stable structure that is able to support weight. ➤ Creating a frame structure with a focus on triangulation. 	<ul style="list-style-type: none"> ▪ Making a range of different shaped beam bridges. ▪ Using triangles to create truss bridges that span a given distance and support a load. ▪ Building a wooden bridge structure. ▪ Independently measuring and marking wood accurately. ▪ Selecting appropriate tools and equipment for particular tasks. ▪ Using the correct techniques to saws safely. ▪ Identifying where a structure needs reinforcement and using card corners for support. ▪ Explaining why selecting appropriating materials is an important part of the design process. ▪ Understanding basic wood functional properties. 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product 	<ul style="list-style-type: none"> ○ To understand some different ways to reinforce structures. ○ To understand how triangles can be used to reinforce bridges. ○ To know that properties are words that describe the form and function of materials. ○ To understand why material selection is important based on properties. ○ To understand the material (functional and aesthetic) properties of wood. <p>Additional Knowledge</p> <ul style="list-style-type: none"> ○ To understand the difference between arch, beam, truss and suspension bridges. ○ To understand how to carry and use a saw safely. 	<p>Abutment • Accurate • Arched bridge • Beam bridge • Coping saw • Evaluation • File • Mark out • Material properties • Measure • Predict • Reinforce • Research • Sandpaper • Set square • Suspension bridge • Tenon saw • Test • Truss bridge • Wood</p>
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Year 6

Term	Module	Design	Make	Evaluate	Technical knowledge	
Autumn	Food and Nutrition – Come Dine With Me	<ul style="list-style-type: none"> ➤ Writing a recipe, explaining the key steps, method and ingredients. ➤ Including facts and drawings from research undertaken. 	<ul style="list-style-type: none"> ▪ Following a recipe, including using the correct quantities of each ingredient. ▪ Adapting a recipe based on research. ▪ Working to a given timescale. ▪ Working safely and hygienically with independence. 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product <ul style="list-style-type: none"> • Evaluating a recipe, considering: taste, smell, texture and origin of the food group. 	<ul style="list-style-type: none"> ○ 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). 	<p>Balance • Bitter • Bridge method • Complement • Cookbook • Farm to fork • Method • Nationality • Reared • Research • Pairing • Preparation • Salty • Sour • Storyboard • Sweet • Umami</p>

Spring	Digital World – Navigate the World (Microbits)	<ul style="list-style-type: none"> ➤ Writing a design brief from information submitted by a client. ➤ Developing design criteria to fulfil the client’s request. ➤ Considering and suggesting additional functions for my navigation tool. ➤ Developing a product idea through annotated sketches. ➤ Placing and manoeuvring 3D objects, using CAD. ➤ Changing the properties of, or combining one or more 3D objects, using CAD. 	<ul style="list-style-type: none"> ▪ Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo). ▪ Explaining material choices and why they were chosen as part of a product concept. ▪ Programming an N,E, S, W cardinal compass. 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product 	<ul style="list-style-type: none"> ○ To know accelerometers can detect movement. ○ To understand that sensors can be useful in products as they mean the product can function without human input. <p>Additional Knowledge</p> <ul style="list-style-type: none"> ○ To know that designers write design briefs and develop design criteria to enable them to fulfil a client’s request. ○ To know ‘multifunctional’ means an object or product has more than one function. ○ To know that magnetometers are devices that measure the Earth’s magnetic field to determine which direction you are facing 	<p>3D CAD • Application (apps) • Biodegradable • Boolean • Cardinal compass • Client • Compass • Concept • Convince • Corrode • Duplicate • Environmentally friendly • Equipment • Feature • Finite • Function • Functional • GPS tracker • If statement • Infinite • Investment • Lightweight • Loop • Manufacture • Materials (wood, metal, plastic etc.) • Mouldable • Navigation • Non-recyclable • Product lifecycle • Product lifespan • Program • Recyclable • Smart • Sustainable • Sustainable design • Unsustainable design • Variable • Workplane</p>		
Summer	Textiles – Sewing Mobile Phone Cases	<ul style="list-style-type: none"> ➤ Consider a range of factors in their design criteria and use this to create a design. ➤ Create a range of designs, applying the design criteria to their work. 	<ul style="list-style-type: none"> ▪ Use a running stitch to join fabric to make a functional waistcoat. ▪ Attach a secure fastening and decorative objects 	<p>Prototype Evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ My favourite part <p>Final evaluation</p> <ul style="list-style-type: none"> ✓ Aim of my project ✓ Did my product meet my aim? ✓ What worked well ✓ The challenges ✓ What I would change ✓ How the changes made from my prototype effect my final product 	<ul style="list-style-type: none"> ○ Know that structures can be strengthened by manipulating materials. ○ Know that it is important to design items with the client in mind. 	<table border="1" data-bbox="1816 871 2175 1259"> <tr> <td>design felt millimetre prototype criteria fastening blanket stitch scale specification design process</td> <td>template cutting line aesthetics annotate accurately sewing line functional measurements seam allowance evaluate</td> </tr> </table>	design felt millimetre prototype criteria fastening blanket stitch scale specification design process	template cutting line aesthetics annotate accurately sewing line functional measurements seam allowance evaluate
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