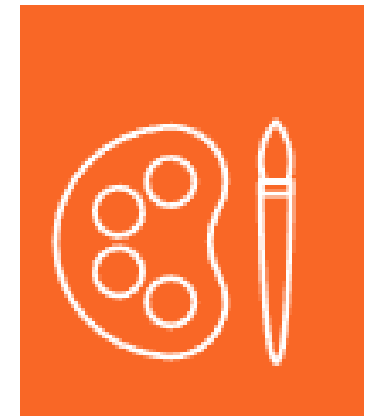




Curriculum overview for
parents and carers

Design and Technology

Summary of key DT learning for EYFS to Year 6.



Design and Technology Curriculum Overview

EYFS

Unit 1	Workshop	Autumn lesson	Hibernation box Designing and making a hibernation box, children consider the function of a product.
	Junk modelling Exploring materials through junk modelling, children develop their scissor skills and awareness of different materials and joining techniques. Children begin to make verbal plans and material choices before starting, and problem solve while making their model.		
Unit 2	Cooking and nutrition	Christmas lesson	Sliding picture Creating a sliding mechanism chimney picture, children develop their cutting and joining skills.
	Soup Learning about vegetables and where they come from while preparing to make a soup. Children describe the taste of a range of vegetables and design a soup recipe as a class. They practise cutting skills and prepare the vegetables for their class soup before testing the final product.		
Unit 3	Textiles	Spring lesson	Flower threading Creating their own threading cards, children practise using scissors and a hole punch.
	Bookmarks Developing fine motor skills through a range of threading activities before moving on to use binka and a needle. Children design a bookmark, considering what to include and why and then follow their designs to complete their bookmarks.		
Unit 4	Structures	Easter lesson	Hanging decoration Designing a hanging egg decoration, children make choices about how to decorate their egg.
	Boats Considering the properties of materials through water play, children discover which materials are waterproof and whether they float or sink. Children evaluate a variety of boats and use their new-found knowledge to design and make a boat that is waterproof and floats.		
		Summer lessons	Rainbow salad Researching, designing and making a colourful and healthy salad.

Y1/2
Cycle A
2026-27

Autumn 2

Mechanisms

Wheels and axles

Learning about the main components of a wheeled vehicle. Developing understanding of how wheels, axles and axle holders work and problem-solving why wheels won't rotate. Pupils then design and build their own vehicles and evaluate them against a set design criteria.

Spring 2

Structures

Baby bear's chair

Using the tale of Goldilocks and the Three Bears as inspiration, pupils help Baby Bear by making him a brand new chair, exploring different shapes and materials. When designing the chair, they consider his needs and what he likes.

Summer 2

Cooking and nutrition

Smoothies

Handling and exploring fruits and vegetables and learning how to identify a fruit. Undertaking taste tests to identify ingredients for a smoothie they make, and designing and creating packaging for their smoothie.

Y1/2
Cycle B
2025-26

Autumn 2

Textiles

Puppets

Exploring different ways of joining fabrics before creating hand puppets based upon characters from a well-known fairytale. Developing technical skills of cutting, glueing, stapling and pinning.

Spring 2

Structures/ Mechanisms

Constructing a windmill

Designing, decorating and building a windmill, developing an understanding of different types of windmill, how they work and their key features. Looking at examples of windmills and exploring the functions that they carry out.

Summer 2

Cooking and nutrition

Balanced diet

Exploring and learning what forms a balanced diet, pupils taste test ingredient combinations from different food groups to inform a wrap design of their choice which will include a healthy mix of protein, vegetables and dairy.

Y3/4
Cycle A
2026-27

Autumn 2

Electrical systems

Torches

Applying their scientific understanding of electrical circuits, pupils design and create a torch made from recycled and reclaimed materials and objects. They then evaluate their products against a set design criteria.

Spring 2

Cooking and nutrition

Eating seasonally

Discovering when and where fruits and vegetables are grown and learning about seasonality in the UK. Pupils respond to a brief to design a seasonal food tart using ingredients harvested in the UK in May and June.

Summer 2

Structure

Pavilions

Exploring pavilion structures, learning what they are used for and investigating how to create strong and stable structures before designing and creating their own pavilions, complete with cladding.

Y3/4
Cycle B
2025-26

Autumn 2

Digital world

Wearable technology

Designing, coding and promoting a piece of wearable technology to use in low light conditions, developing their understanding of programming to monitor and control products to solve a design scenario.

Spring 2

Mechanical systems

Making a slingshot car

Using lollipop sticks, wheels, dowels and straws to create a moving car. Pupils build a car chassis and design the body of the car, giving consideration to how the shape will affect the car's air resistance. They then construct and test their cars.

Summer 2

Textiles

Cross stitch and appliqué

Cushions or Egyptian collars

Pupils learn two new sewing skills: cross stitch and appliqué and then apply these to the design, decoration and assembly of their own cushions or Egyptian collars.

Y5/6
Cycle A
2026-27

Autumn 2

Cooking and nutrition

Developing a recipe

Researching and modifying a traditional bolognese sauce recipe to improve the nutritional value before then cooking an adapted version and creating packaging that fits a given design criteria. Learning where beef comes from.

Spring 2

Structures

Bridges

Learning about different types of bridges and exploring how the strength of structures can be affected by the shapes used within them. Pupils then create their own bridge and test its durability - using woodworking tools and techniques.

Summer 2

Electrical systems

Doodlers

Further exploring series circuits and introducing motors. Pupils investigate existing products and use their problem-solving skills to establish how they think the products have been constructed, before then creating their own doodler.

Y5/6
Cycle B
2025-26

Autumn 2

Mechanical systems

Making a pop-up book

Creating a four-page pop-up story book design, incorporating a range of functional mechanisms that use levers, sliders, layers and spacers to give the illusion of movement through interaction.

Gears and pulleys

Exploring the history, mechanics and uses of gears and pulleys, children apply their understanding to make a gear and a pulley system and design an eco-bike that harnesses the energy from an exercise bike to do work.

Spring 2

Textiles

Stuffed toys

Designing and making a stuffed toy. Pupils learn a new stitch - blanket stitch - which they use to join the fabric together for their toys, before creating and adding decoration.

Summer 2

Digital world

Navigating the world

Programing a navigation tool to produce a multifunctional device for trekkers. Combining 3D virtual objects to form a complete product concept in 3D computer-aided design modelling software.

Progression of skills and knowledge

Structures

EYFS (Reception)

Junk modelling

Boats

		EYFS (Reception)	
		Junk modelling	Boats
Skills	Design	<ul style="list-style-type: none"> • Making verbal plans and material choices. • Developing a junk model. 	<ul style="list-style-type: none"> • Designing a junk model boat. • Using knowledge from exploration to inform design.
	Make	<ul style="list-style-type: none"> • Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together. 	<ul style="list-style-type: none"> • Making a boat that floats and is waterproof, considering material choices.
	Evaluate	<ul style="list-style-type: none"> • Giving a verbal evaluation of their own and others' junk models with adult support. • Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model. 	<ul style="list-style-type: none"> • Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	Technical	<ul style="list-style-type: none"> • To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model. 	<ul style="list-style-type: none"> • To know that 'waterproof' materials are those which do not absorb water.
	Additional		<ul style="list-style-type: none"> • To know that some objects float and others sink. • To know the different parts of a boat.

Year 1/2

Cycle B: Windmills

Cycle A: Baby Bear's Chair

Skills	Design	<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"> • Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.
	Make	<ul style="list-style-type: none"> • Making stable structures from card. • 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. • Finding the middle of an object. • Puncturing holes. • Adding weight to structures. • Creating supporting structures. • Cutting evenly and carefully. 	<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.
	Evaluate	<ul style="list-style-type: none"> • Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements. 	<ul style="list-style-type: none"> • Exploring the features of structures. • Comparing the stability of different shapes. • Testing the strength of own structures. • Identifying the weakest part of a structure. • Evaluating the strength, stiffness and stability of own structure.
Knowledge	Technical	<ul style="list-style-type: none"> • 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. • To know that the sails or blades of a windmill are moved by the wind. • To know that a structure is something built for a reason. • To know that stable structures do not topple. • To know that adding weight to the base of a structure can make it more stable. 	<ul style="list-style-type: none"> • To know that shapes and structures with wide, flat bases or legs are the 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 or material is one which does not bend easily.
	Additional	<ul style="list-style-type: none"> • 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. • To know that windmills are used to generate power and were used for grinding flour. 	<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.

Year 3/4

Y5/6

Cycle A: Pavilions

Cycle A: Bridges

Skills	Design	<ul style="list-style-type: none"> Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. Building frame structures designed to support weight.
	Make	<ul style="list-style-type: none"> Creating a range of different shaped frame structures. Making a variety of free standing frame structures of different shapes and sizes. Selecting appropriate materials to build a strong structure and cladding. Reinforcing corners to strengthen a structure. Creating a design in accordance with a plan. Learning to create different textural effects with materials.
	Evaluate	<ul style="list-style-type: none"> Evaluating structures made by the class. Describing what characteristics of a design and construction made it the most effective. Considering effective and ineffective designs.
Knowledge	Technical	<ul style="list-style-type: none"> To understand what a frame structure is To know that a 'free-standing' structure is one which can stand on its own
	Additional	<ul style="list-style-type: none"> To know that a pavilion is a decorative building or structure for leisure activities. To know that cladding can be applied to structures for different effects. To know that aesthetics are how a product looks. To know that a product's function means its purpose. To understand that the target audience means the person or group of people a product is designed for. To know that architects consider light, shadow and patterns when designing.

Skills	Design	<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.
	Make	<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.
	Evaluate	<ul style="list-style-type: none"> Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary. Suggesting points for improvements for own bridges and those designed by others.
Knowledge	Technical	<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.
	Additional	<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.

		Year 1/2 cycle A	
		Option 1: *New* <u>Wheels and axles</u>	
Skills	Design	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. Following and recalling simple safety instructions. 	<ul style="list-style-type: none"> 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. Puncturing holes. Recognising the edges of paper and card need to be stuck firmly using a glue stick. Using tools, like scissors, to create shapes. Beginning to cut large shapes and thicker materials like card. Beginning to use controlled painting or colouring techniques to finish a product. Adding texture to create visual interest.
	Evaluate	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comparing their finished products with their original designs. Saying what they like about their peers' designs and products. Accepting feedback and understanding it is meant to improve their work.
Knowledge	Technical	<ul style="list-style-type: none"> Recognising and exploring everyday objects that have mechanisms. Many things that move have parts inside to help them work. 	<ul style="list-style-type: none"> Mechanisms usually limit unwanted movement. An axle allows the wheel to turn without falling off.
	Additional	<ul style="list-style-type: none"> To know that the 'user' is the person who will use the product. To know that different users may want different things from a design. To know that designers usually design and make something to solve a problem. To know that who they are designing for makes a difference to what they design. To know that the purpose is what something is for. To know that existing products can help when deciding what to design. To know that drawings are a way to explain ideas. To know that a plan is deciding what to do first and next. To know that choosing different materials or components will have an effect on what their product does or looks like. 	<ul style="list-style-type: none"> To know that different equipment does different things. To know the names of common pieces of equipment. To know that some tools are sharp like scissors and knives. To know that following instructions helps with safety. To know that cutting in a straight line can be helpful when making. To know that tools can be used to shape objects. To know that different materials can be shaped by different tools. To know that some products will be better than others. To know that their ideas or products can be made better. To know that their final product might be different to their original idea. To know that their ideas can make someone else's work better. To know that other people's ideas can help make their work better.

Year 3/4

Y5/6

Cycle B: Making a slingshot car

Cycle B: Making a pop-up book

Skills	Design	<ul style="list-style-type: none"> • Designing a shape that reduces air resistance. • Drawing a net to create a structure from. • Choosing shapes that increase or decrease speed as a result of air resistance. • Personalising a design.
	Make	<ul style="list-style-type: none"> • Measuring, marking, cutting and assembling with increasing accuracy. • Making a model based on a chosen design.
	Evaluate	<ul style="list-style-type: none"> • Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance.
Knowledge	Technical	<ul style="list-style-type: none"> • To understand that all moving things have kinetic energy. • To understand that kinetic energy is the energy that something (object/person) has by being in motion. • To know that air resistance is the level of drag on an object as it is forced through the air. • To understand that the shape of a moving object will affect how it moves due to air resistance..
	Additional	<ul style="list-style-type: none"> • To understand that products change and evolve over time. • To know that aesthetics means how an object or product looks in design and technology. • To know that a template is a stencil you can use to help you draw the same shape accurately. • To know that a birds-eye view means a view from a high angle (as if a bird in flight). • To know that graphics are images which are designed to explain or advertise something. • To know that it is important to assess and evaluate design ideas and models against a list of design criteria.

Skills	Design	<ul style="list-style-type: none"> • Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book.
	Make	<ul style="list-style-type: none"> • Following a design brief to make a pop up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.
	Evaluate	<ul style="list-style-type: none"> • Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement.
Knowledge	Technical	<ul style="list-style-type: none"> • 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.
	Additional	<ul style="list-style-type: none"> • To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.

Year 3/4

Y5/6

Cycle A: Torches

Cycle A: Doodlers

Skills	Design	<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.
	Make	<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.
	Evaluate	<ul style="list-style-type: none"> Evaluating electrical products. Testing and evaluating the success of a final product.
Knowledge	Technical	<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.
	Additional	<ul style="list-style-type: none"> 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.

Skills	Design	<ul style="list-style-type: none"> Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. Developing design criteria based on findings from investigating existing products. Developing design criteria that clarifies the target user.
	Make	<ul style="list-style-type: none"> Altering a product's form and function by tinkering with its configuration. Making a functional series circuit, incorporating a motor. Constructing a product with consideration for the design criteria. Breaking down the construction process into steps so that others can make the product.
	Evaluate	<ul style="list-style-type: none"> Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. Determining which parts of a product affect its function and which parts affect its form. Analysing whether changes in configuration positively or negatively affect an existing product. Peer evaluating a set of instructions to build a product.
Knowledge	Technical	<ul style="list-style-type: none"> To know that series circuits only have one direction for the electricity to flow. To know when there is a break in a series circuit, all components turn off. To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. To know a motorised product is one which uses a motor to function.
	Additional	<ul style="list-style-type: none"> To know that product analysis is critiquing the strengths and weaknesses of a product. To know that 'configuration' means how the parts of a product are arranged.

		EYFS (Reception)	Year 1/2	
		<u>Soup</u>	Cycle A: <u>Smoothies</u>	Cycle B: <u>Balanced diet</u>
Skills	Design	<ul style="list-style-type: none"> • Designing a soup recipe as a class. • Designing soup packaging. 	<ul style="list-style-type: none"> • Designing smoothie carton packaging by-hand. 	<ul style="list-style-type: none"> • Designing three wrap ideas based on a food combination which work well together.
	Make	<ul style="list-style-type: none"> • Chopping plasticine safely. • Chopping vegetables with support. 	<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"> • 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.
	Evaluate	<ul style="list-style-type: none"> • Tasting the soup and giving opinions. • Describing some of the following when tasting food: look, feel, smell and taste. • Choosing their favourite packaging design and explaining why. 	<ul style="list-style-type: none"> • Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Comparing their own smoothie with someone else's. 	<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.
Knowledge		<ul style="list-style-type: none"> • To know that soup is ingredients (usually vegetables and liquid) blended together. • To know that vegetables are grown. • To recognise and name some common vegetables. • To know that different vegetables taste different. • To know that eating vegetables is good for us. • To discuss why different packages might be used for different foods. 	<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). 	<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.

Year 3/4

Y5/6

Cycle A: Eating seasonally

Cycle A: Developing a recipe

Skills	Design	<ul style="list-style-type: none"> • Designing a recipe for a savoury tart.
	Make	<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.
	Evaluate	<ul style="list-style-type: none"> • Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.
Knowledge	<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. 	

Skills	Design	<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.
	Make	<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.
	Evaluate	<ul style="list-style-type: none"> • Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.
Knowledge	<ul style="list-style-type: none"> • To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed. • To know that recipes can be adapted to suit nutritional needs and dietary requirements. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and 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. 	

Bookmarks

Skills	Design	<ul style="list-style-type: none"> • Discussing what a good design needs. • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials.
	Make	<ul style="list-style-type: none"> • Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading.
	Evaluate	<ul style="list-style-type: none"> • Reflecting on a finished product and comparing to their design.
Knowledge		<ul style="list-style-type: none"> • To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.

Cycle B: Puppets

Skills	Design	<ul style="list-style-type: none"> • Using a template to create a design for a puppet.
	Make	<ul style="list-style-type: none"> • Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing the steps taken during construction.
	Evaluate	<ul style="list-style-type: none"> • Reflecting on a finished product, explaining likes and dislikes.
Knowledge		<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.

Y3/4

Y5/6

Cycle B: Egyptian collars

Cycle B: Stuffed toys

Skills	Design	<ul style="list-style-type: none"> • Designing and making a template from an existing cushion and applying individual design criteria.
	Make	<ul style="list-style-type: none"> • Following design criteria to create a cushion or 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 join fabric. • Decorating fabric using appliqué. • Completing design ideas with stuffing and sewing the edges (Cushions) or embellishing the collars based on design ideas (Egyptian collars).
	Evaluate	<ul style="list-style-type: none"> • Evaluating an end product and thinking of other ways in which to create similar items.
Knowledge	<ul style="list-style-type: none"> • 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. 	

Skills	Design	<ul style="list-style-type: none"> • Designing a stuffed toy, considering the main component shapes required and creating an appropriate template. • Considering the proportions of individual components.
	Make	<ul style="list-style-type: none"> • Creating a 3D stuffed toy from a 2D design. • Measuring, marking and cutting fabric accurately and independently . • Creating strong and secure blanket stitches when joining fabric. • Threading needles independently. • Using appliqué to attach pieces of fabric decoration. • Sewing blanket stitch to join fabric. • Applying blanket stitch so the spaces between the stitches are even and regular.
	Evaluate	<ul style="list-style-type: none"> • Testing and evaluating an end product and giving point for further improvements.
Knowledge	<ul style="list-style-type: none"> • To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric. • To understand that it is easier to finish simpler designs to a high standard. • To know that soft toys are often made by creating appendages separately and then attaching them to the main body. • To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely. 	

Y3/4

Y5/6

Cycle B: Wearable technology

Cycle B: Navigating the world

Skills	Design	<ul style="list-style-type: none"> • Problem solving by suggesting which features on a micro:bit might be useful and justifying my ideas. • Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge. • Developing design ideas through annotated sketches to create a product concept. • Developing design criteria to respond to a design brief.
	Make	<ul style="list-style-type: none"> • Following a list of design requirements. • Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.
	Evaluate	<ul style="list-style-type: none"> • Analysing and evaluating wearable technology. • Using feedback from peers to improve design.
Knowledge	Technical	<ul style="list-style-type: none"> • To understand that, in programming, a 'loop' is code that repeats something again and again until stopped. • To know that a micro:bit is a pocket-sized, codeable computer. • To know that a simulator is able to replicate the functions of an existing piece of technology.
	Additional	<ul style="list-style-type: none"> • To know what the 'Digital Revolution' is and features of some of the products that have evolved as a result. • To understand what is meant by 'point of sale display'. • To know that CAD stands for 'Computer-aided design'. • To know what a focus group is by taking part in one.

Skills	Design	<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.
	Make	<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.
	Evaluate	<ul style="list-style-type: none"> • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Developing an awareness of sustainable design. • Identifying key industries that utilise 3D CAD modelling and explaining why. • Describing how the product concept fits the client's request and how it will benefit the customers. • Explaining the key functions in my program, including any additions. • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch. • Demonstrating a functional program as part of a product concept pitch.
Knowledge	Technical	<ul style="list-style-type: none"> • 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.
	Additional	<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 that '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.