



## Design Technology Progression of Knowledge

### National Curriculum

### EYFS Framework

### Expressive Arts and Design

The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

### Pupils should be taught in KS1:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught 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

**Pupils should be taught in KS2:**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. When designing and making, pupils should be taught 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 and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

### Key stage 1

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

### Key stage 2

- 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.

### Progression of knowledge- year on year

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Cooking and Nutrition</b>	N/A	Begin to understand where food comes from  Prepare simple dishes using knowledge of healthy food	Understand where food comes from  Use basic principles of a healthy and varied diet to prepare dishes	Apply principles of a healthy, varied diet when preparing variety of savoury dishes  Apply understanding of seasonality and its link to ingredients	Know where and how a variety of ingredients are grown, reared, caught and processed	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  Know where and how a variety of ingredients are grown, reared, caught and processed and

							its impact on meal design
							Develop crucial life skills of feeding themselves and others affordably and well.
<b>Design</b>	<p>Use what they have learned about media and materials in original ways, thinking about uses and purpose</p> <p>Represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories</p>	<p>Design simple products that work and look appealing</p> <p>Discuss and draw ideas and use ICT to communicate</p>	<p>Design products for others and themselves that are purposeful, functional and appealing</p> <p>Generate, develop, model and communicate ideas through talking, drawing, templates and ICT.</p>	<p>Use research to inform design</p> <p>Communicate ideas using different strategies eg discussion, sketch</p> <p>Take risks to become innovative and resourceful</p>	<p>Use research to inform design and develop design criteria</p> <p>Communicate, generate and develop ideas using a range of strategies eg prototypes, pattern pieces</p> <p>Take risks to become innovative and resourceful</p>	<p>Use research to inform design and generate own design criteria</p> <p>Communicate, generate, develop and model ideas using a range of strategies eg computer-aided-design, cross-sectional and exploded diagrams</p> <p>Communicate, generate and</p>	<p>Use research to inform innovative design and generate own design criteria</p> <p>Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing</p> <p>Confidently take calculated risks to become innovative,</p>

						<p>develop ideas, drawing on other disciplines eg science, maths, computing</p> <p>Confidently take calculated risks to become innovative, resourceful and enterprising</p>	<p>resourceful and enterprising</p>
<b>Evaluate</b>	N/A	<p>Explore existing products e.g. home, school</p> <p>Discuss own ideas and designs</p>	<p>Evaluate own ideas and designs against given design criteria</p> <p>Explore and evaluate a range of existing products eg home, school</p>	<p>Evaluate own ideas and designs against given design criteria and consider the views of others to improve their work</p> <p>Investigate a range of existing products that address real / relevant problems, in a range of relevant</p>	<p>Evaluate own and others' work suggesting improvements and consider the views of others to improve their work</p> <p>Investigate a range of existing products in a range of relevant contexts eg culture, industry</p>	<p>Understand how key events and individuals in D&amp;T helped to shape the world</p> <p>Generate own design criteria and evaluate ideas and products against these</p> <p>Investigate and analyse a range of existing products that address real /</p>	<p>Explain and understand how key events and individuals in D&amp;T helped to shape the world</p> <p>Generate own design criteria and critique ideas and products against these</p>

				contexts eg home, leisure, school		relevant problems, in a range of relevant contexts	
<b>Make</b>	<p>Safely use and explore a variety of materials, tools and techniques</p> <p>Experiment with colour, design, texture, form and function</p> <p>Represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories</p> <p>Use what they have learned about media and materials in original ways, thinking about uses and purposes</p>	<p>Use a range of materials and components eg construction, textiles and ingredients.</p> <p>Use a range of tools and equipment to perform practical tasks eg cut, shape, join and finish</p>	<p>Select from and use a wide range of materials and components (according to their characteristics) eg construction, textiles and ingredients.</p> <p>Select from and use a wide range of tools and equipment to perform practical tasks eg cut, shape, join and finish</p>	Select from and use a wide range of tools, equipment, materials and components accurately	Select from and use a wider range of tools, equipment, materials and components accurately to make prototypes	According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes	According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes

<p><b>Technical Knowledge</b></p>	<p>Use what they have learned about media and materials in original ways, thinking about uses and purposes</p>	<p>Start to build structures, exploring ways to stiffen, stable and strengthen</p> <p>Explore simple mechanisms</p>	<p>Build structures, exploring ways to stiffen, stabilise and strengthen</p> <p>Explore and use mechanisms eg levers, wheels and axles</p>	<p>Apply understanding of how to strengthen, stiffen and reinforce structures</p> <p>Identify range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)</p>	<p>Apply understanding of how to strengthen, stiffen in order to reinforce more complex structures</p> <p>Use computing to program, monitor and control products</p> <p>Identify wider range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)</p> <p>Use understanding of electrical systems (series circuits, switches, bulbs and motors)</p> <p>Link to Science</p>	<p>Construct more complex structures by applying range of strategies in order to solve real / relevant problems</p> <p>Drawing on disciplines &amp; making connections to wider subject areas, apply understanding of computing to program, monitor and control products</p> <p>Making connections to real &amp; relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages)</p>	<p>Construct more complex structures by applying range of strategies in order to solve real / relevant problems</p> <p>Drawing on disciplines &amp; making connections to wider subject areas, apply understanding of computing to program, monitor and control products.</p> <p>Making connections to real &amp; relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages)</p>
-----------------------------------	--	---	--	---	--	--	---

						<p>Making connections to real &amp; relevant problems, apply understanding of electrical systems (series circuits, switches, bulbs and motors)</p> <p>Link to Science</p>	<p>Making connections to real &amp; relevant problems, apply understanding of electrical systems (series circuits, switches, bulbs and motors)</p> <p>Link to Science</p>
--	--	--	--	--	--	---	---

### Topics Overview

		Years 1 & 2	Years 3 & 4	Years 5 & 6
<p><b>Cycle A</b> 2022-2023</p>	<p>This is us</p> <p>Let's celebrate</p> <p>Baa Quack Moo</p> <p>Overground/ Underground</p>	<p>Science- I'm a Survivor</p> <p>History- The lady with the lamp</p> <p>Geography- Arctic adventures</p> <p>History- Life long ago</p> <p>History-Castles</p> <p>Geography- In the Jungle</p>	<p>History – Tomb raider</p> <p>Geography – mountains and rivers</p> <p>Science – light and dark</p> <p>Science – healthy me</p> <p>Geography – stars and stripes</p> <p>History – Divide and conquer</p>	<p>History – Great Greece</p> <p>Geography – Mighty Mayans</p> <p>Science – Space</p> <p>History – Bletchley park</p> <p>Geography- across the ocean</p> <p>Geography – Exciting explorers</p>

<b>Cycle B</b> 2023 - 2024	To the rescue  Oh I do like to be beside the seaside	Science-Marvellous Minibeasts History- The great fire of London History- Transport through time Science-Growing up Geography- Sink or swim Geography- Waste not want not	History – Rotten Romans Geography – Volcanos History – Heads will roll Geography – It’s a wonderful world History – From stone age to iron age Geography – my MK	History – Titanic Geography – Rainforests History – Vile Victorians History – Shakespeare’s sagas Geography – Where land meets the sea Science – Fitness or football
-------------------------------	--	---	---	---

## Autumn 1

	EYFS	Years, 1 & 2	Years 3 & 4		Years 5 & 6	
<b>Cycle (A)</b> 2022 - 2023		No DT Planning	<b>Cycle A</b>	<p><b>Structures</b> – Egyptian Shaduf (Resources needed: wooden doweling, clay, string) <a href="https://www.youtube.com/watch?v=dwCmYfJEZaI">https://www.youtube.com/watch?v=dwCmYfJEZaI</a></p> <p>L.I. To understand what a Shaduf is and how they were made. L.I. To be able to investigate a wider range of real-life mechanisms that use a pulley system today. L.I. To be able to use a given design criteria to design a Shaduf. L.I. To know how to use a variety of materials and components to create a Shaduf model. (Use a section of materials for this: sticks, flower pots, gravel, lollipop sticks, yoghurt pots, Lego etc) L.I. To be able to evaluate a design, considering the views of others to improve my design. <b>Key knowledge:</b> Know what a Shaduf is and how they were made. Know what equipment needed to create a pulley.</p>	<b>Cycle A</b>	No DT Planning

				<p>Know the history of the pulley design.          Know how to follow a design criteria effectively.          Know how to evaluate a design and the vocabulary used.</p> <p><b>Vocabulary:</b>          Shaduf, pulley system, Egyptian, design, evaluation, component.</p>		
<p><b>Cycle (B)</b>  <b>2023 - 2024</b></p>		<p><b>Marvellous Minibeasts</b>  <b>Textiles- Butterfly cushions</b>  <b>Y1/2 Weaving</b>  <b>Y2 running stitch</b>  <i>Progression</i></p> <p><b>Y1</b> Begin to identify different forms of textiles/fabric e.g. felt, velvet, cotton. Continue to develop understanding weaving techniques. Use different fabrics and materials in collages.</p> <p><b>Y2</b> To be shown how to thread a needle. To use a running stitch. Stitch two pieces of fabric using a running stitch. Continue to gain experience in weaving, both 3D and flat i.e. grass through twigs, carrier bags on a bike wheel.</p> <p>L.I. To be able to explore and evaluate a range of products.          L.I. To be able to understand how to use a variety of weaving techniques.          L.I. To be able to practice the running stitch on binka.  <i>(Use wool for this and tapestry needles.)</i>          L.I. To be able to select from a variety of materials and fabrics when designing a product.  <i>(Cut out the image of a butterfly, design the butterfly</i></p>	<p><b>Cycle B</b></p>	<p><b>Structures and mechanisms – catapults</b>  <i>Focus on Structures and Mechanisms</i>  <i>Photos to be collated at the end of the year to show progression</i>          Lesson 1 L.I. To be able to use research to inform a design.  <i>(Look at a selection of catapults and gather ideas them. Use the internet to research.)</i>          L.I. To be able to evaluate an existing product using a design-criteria.  <i>(Create their own design criteria)</i>          L.I. To be able to follow a design-criteria.  <i>(Using the research from the previous lesson, follow a design-criteria to communicate their design on design paper or using ICT, through drawings and discussion. They could create a prototype using the simplified version with lollipop sticks as a GT activity.)</i>          L.I. To be able to use a range of materials, tools, equipment and components when following a design brief.  <i>(Look at a design brief of making a catapult. Select from a variety of materials and components to make design slightly different to others.)</i>          L.I. To be able to evaluate and improve my own design using a design-criteria.</p>	<p><b>Cycle B</b></p>	<p><b>Structures – Building a ship</b>  <i>Focus on Structures and Mechanisms-design and make a moving ship using a series circuit to move a propeller (motor/ lights/buzzer)</i>          L.I. To be able to use research to inform my design and design-criteria.  <i>(Using computers to research ship designs. Think about how they work and creating a design-criteria for the mechanisms of either making a propeller move or electricity to make it light up)</i>          L.I. To be able to communicate a design brief through the use of ICT, including cross sectional and exploded diagrams.  <i>(Look at examples of a motor-powered vehicle/boat. Design the mechanics of the boat as an exploded/cross sectional diagram. Look at original</i></p>

		<p>and what materials they will use to decorate it. Will they cut and stick or sew on buttons etc? Use thick card as a template for them to draw around and cut out the image of the butterfly twice).</p> <p>L.I. To know how to use the running stitch when sewing. (Y1 Glue on a pre-cut image of a butterfly from a chosen fabric. Y2 Sew on a pre-cut/cut out an image themselves of a butterfly out of felt/fabric. Y1 With support use the running stitch. Y2 Use the running stitch to stitch up the pillow)</p> <p>L.I. To be able to evaluate our designs against a design-criteria. (Y1 discuss designs as a group. Y2 Children to use a pre-written design-criteria when evaluating their design.)</p> <p><b>Key knowledge</b> An understanding of materials and some of their properties. How to design a product using the most appropriate materials. Weaving techniques in preparation from them to learn how to use a running stitch to attach two pieces of fabric together securely. The process of researching, designing and evaluating a DT project.</p> <p><b>Vocabulary:</b></p>	<p>(Using a design-criteria, evaluate their design, giving suggestions as to how to improve it.)</p> <p>L.I. To be able to apply my understanding of how to strengthen, stiffen and reinforce a catapult. (Using the evaluation from previous lesson, identify areas that need improving. How can I strengthen the design? Use a variety of materials to stiffen, strengthen or reinforce the catapult.)</p> <p><b>Key knowledge</b> Understanding how pulleys work and how to use them effectively. Know how to evaluate a product they designed and an existing product. Know how to research effectively.</p> <p><b>Vocabulary:</b> Projectile, fortification, gravity, hurl, winch</p>	<p>Titanic blue prints to support.)</p> <p>L.I. To be able to use and select appropriate materials and components. (Select materials to create their design.)</p> <p>L.I. To be able to use tools and techniques when carrying out a design. (Use knowledge of a variety of tools when constructing their design. E.g. Use of scissors, rulers to measure, screws and fixings, sanding, Stanley knives and glue guns etc.)</p> <p>L.I. To be able to select from materials and components when designing high quality prototypes. (Make a prototype boat) <a href="https://www.youtube.com/watch?v=tc1ANGJ2Zio">https://www.youtube.com/watch?v=tc1ANGJ2Zio</a></p> <p>L.I. To be able to apply understanding of electrical systems. (Create the series circuit for the motorised propeller.)</p> <p><b>Key knowledge</b> Understanding of how different constructions have an impact on its structure How the working characteristics of materials affect the ways they are used</p>
--	--	--	--	---

		Evaluate, material, compare, weave, challenge, over, above, under, below, felt, fabric, running stitch, design.			How materials can be combined to create more useful properties <b>Vocabulary:</b> Criteria, blueprint, cross-sectional, exploded Diagram, components, cutting/shaping/joining
--	--	---	--	--	---

## Autumn 2

	EYFS	Years, 1 & 2	Years 3 & 4	Years 5 & 6
Cycle (A) 2022 - 2023		<p><b>Textiles – Weaving</b>  <i>End product: Create a lamp using woven materials.</i>  <i>(Resources: Wool, string, cardboard strips, coloured paper/card)</i>            Y1 – Weave coloured tissue paper (red, yellow, orange) through sugar paper and turn into a lantern with a handle.            Y2 – weave wool and material to create a background for a lamp.            Pre-cut black card image of a lamp – woven material goes behind.</p>  <p>L.I. To be able to explore and evaluate existing woven products using a given criteria.            L.I. To be able to communicate a design using a labelled diagram.  <i>(Link to ICT)</i>            L.I. To be able to use a variety of materials to create a weave pattern on a large scale.  <i>(Use strips of material (large scale) and weave in and out of the fence near Y5/6 area. Link to colours of the lamp.)</i></p>	<p>Cycle A            No DT Planning</p>	<p>Cycle A  <b>Food Tech – Chocolate</b>            L.I. To be able to create a set of design criteria to critique a range of existing products.            L.I. To understand how chocolate is grown and produced.            L.I. To understand the problems related to the farming of Cacao beans.            L.I. To be able to design a product using a set of criteria I have generated based on a real life product.            L.I. To be able to select from a variety of ingredients based on their aesthetic qualities. <i>(1 of 2 lessons)</i>            L.I. To be able to use a variety of equipment and ingredients to create a prototype. <i>(2 of 2 lessons – make)</i>            L.I. To be able to critique my product against a set of criteria I have created. <i>(Taste testing – sell to people and ask opinions of the taste-comparison test)</i>  <b>Key knowledge:</b>            Know where Cacao is grown and how it is grown and manufactured.            Know how the farmers of Cacao are treated and poorly paid.            Know how the Fairtrade Foundation has helped to ensure farmers are paid a decent wage for the product they are farming.            Know how to create a design criteria.</p>

		<p>L.I. To be able to select appropriate coloured materials for a purpose (<i>weaving</i>).</p> <p>L.I. To be able to evaluate my design using a given criteria.</p> <p><b>Key knowledge:</b>          Know how to weave a variety of materials.          Know how to use a design-criteria to evaluate existing products.          Know how to design a product using labels and simple diagrams.          Know how to communicate a design with a partner.</p> <p><b>Vocabulary:</b>          Diagram, evaluate, weave, material, purpose, criteria.</p>				<p>Know how to use technical vocabulary when evaluating other products as well as their own.</p> <p><b>Vocabulary:</b>          Critique, product, evaluate, prototype, aesthetic, compare, Fairtrade, manufactured.</p>
<b>Cycle (B)</b> 2023 - 2024		No DT Planning	<b>Cycle B</b>	No DT Planning	<b>Cycle B</b>	No DT Planning

## Spring 1

	EYFS	Years 1 & 2	Years 3 & 4		Years 5 & 6	
<b>Cycle (A)</b> 2022 - 2023		No DT Planning	<b>Cycle A</b>	<p><b>Structure – Moving Shadow Puppets</b>  <i>(Resources: Black card, thin dowling, tape, split pins)</i></p> <p>L.I. To be able to investigate other existing shadow puppets from the Shang dynasty, discussing features we think are effective.  <i>(Link to typical characters and animals used in puppet shows from the dynasty)</i></p> <p>L.I. To be able to communicate a design through discussion and</p>	<b>Cycle A</b>	No DT Planning

			<p>sketches, using research to inform our design.</p> <p>L.I. To be able to use a prototype to inform our final design.  <i>(Look at a variety of tools and joining techniques (split pins, dowling, card, paper, selotape, glue) to create a prototype and use for a later lesson to know how to strengthen and improve our final design)</i></p> <p>L.I. To understand how to strengthen, stiffen and reinforce our shadow puppet.  <i>(Evaluate prototype through discussion- what worked well/didn't, how will they improve this?)</i></p> <p>L.I. To be able to use a range of tools, materials and joining techniques to make a shadow puppet.</p> <p>L.I. To be able to evaluate our own and others' designs, suggesting improvements, considering the views of others to improve my own work.  <i>(Use a given set of criteria for Y3 children)</i></p> <p><b>Key knowledge:</b>          Know why the Shang Dynasty used animal shadow puppets and how they were made.          Know how to research a design.          Using technical vocabulary, discuss design ideas with others and draw sketches of a design.          Know why it is important to create prototypes.          Know how to strengthen, stiffen and reinforce our shadow puppets to improve the design.          Know how to evaluate own and others' work suggesting improvements and consider the views of others to improve their work.</p>		
--	--	--	--	--	--

				<p>Know how to use split pins to create joins and movement in a puppet.</p> <p><b>Vocabulary:</b> Shang dynasty, criteria, prototype, join, shadow puppet, strengthen, stiffen and reinforce.</p>		
<p><b>Cycle (B) 2023 - 2024</b></p>		<p><b>Moving pictures - Moving Pictures (Levers and sliders) Focus on Structures and Mechanisms.</b> <i>Final product: Create a class book on transport with moving pictures using sliders or levers.</i> L.I. To be able to generate ideas through discussion. <i>(Investigate a selection of moving pictures/books etc with levers and sliders. Use a checklist discuss what they like or dislike about the designs. Decide which type of moving part they would like to use - slider or lever)</i> L.I. To be able to communicate ideas through drawing. <i>(Draw image of a scene to be used in their moving picture, using the ideas gathered from Lesson 1. The children could make a different image from the story as to make a class book/selection of books.)</i> L.I. To be able to use a variety of textiles to generate ideas. <i>(Collage of their picture using a variety of materials to create a background image - cutting and sticking).</i></p>	<p><b>Cycle B</b></p>	<p><b>Food tech – Tudor 12<sup>th</sup> night cake</b> L.I. To be able to explain the history of the twelfth Night Cake and <u>why</u> certain ingredients were used to make it. <i>(Apply understanding of seasonality and its link to ingredients)</i> L.I. To be able to evaluate an existing product design. <i>(Taste testing of cakes/ingredients)</i> L.I. To be able to use research to inform a design. <i>(use traditional images of twelfth night cakes and ingredients used)</i> L.I. To be able to select from and use a range of tools and equipment when making a Twelfth Night Cake. <i>(Make a cake as a group or small cupcakes?)</i> L.I. To be able to evaluate a design against a given criteria and consider the views of others to improve my work.</p> <p><b>Key knowledge:</b> Know where in British History the Twelfth Night Cake originated from. Find out the historical context of the Twelfth Night Cake, and the ingredients used in a Twelfth Night Cake as well as why they are used.</p>	<p><b>Cycle B</b></p>	<p>No DT Planning</p>

		<p>L.I. To be able to design and make a lever or slider.  <i>(Create the design of the moving part. Look at a variety of levers and sliders to gather more ideas for their own design. Decide which they will use and design the image on it that will go in the class book)</i></p> <p>L.I. To be able to use tools and techniques to join materials to make a slider or lever.  <i>(Make the moving image using a variety of levers or sliders)</i></p> <p>L.I. To be able to evaluate and improve my design.  <i>(Evaluate product- Look at ways of improving it. How can we strengthen and stiffen the lever or slider? EBI)</i></p> <p><b>Key knowledge:</b>          Develop an understanding of sliders and levers as moving parts. Use this knowledge to design a product using the most appropriate materials.          Know how to select appropriate materials and equipment for their product.          Understand the process of researching, designing and evaluating a DT project.</p> <p><b>Vocabulary:</b>          slider, lever, pivot, mechanisms, moving, pictures, materials, resources, equipment, planning, design.</p>		<p>Know about the traditions associated with the dessert and learn how to replicate the recipe, gaining skills such as whisking, weighing, and folding.          Know how to create a design criteria before making the cake, and then evaluate it after the final product is produced. This will be done through previous experiences.</p> <p><b>Vocabulary:</b>          Twelfth Night Cake, epiphany, Tudors, festivity, celebration, harvest, dried fruits, autumn, agriculture.</p>		
--	--	---	--	--	--	--

## Spring 2

	EYFS,	Years 1 & 2	Years 3 & 4	Years 5 & 6
Cycle (A) 2022 - 2023		<p><b>Structures – Kites</b> L.I. To be able to explore and evaluate a variety of existing products using a given criteria. <i>(aesthetic as well as functional qualities)</i> L.I. To be able to apply qualities of pre-existing products to a design. L.I. To be able to use ICT to communicate design features. L.I. To be able to select from and use a range of components to create a kite structure. L.I. To be able to explore ways to stiffen, stable and strengthen a structure. L.I. To be able to evaluate a design using a given criteria. <b>Key knowledge:</b> Know how to discuss what they like and dislike about other kite products on the market. Know how to gather ideas for their own kite design. Know how to design a kite including features used from products available on the market today. Use their knowledge of other kite designs to inform their own designs. Know how to use computer programmes to communicate their design ideas. Know how to join components together using sticky tape, glue or tacs. Through experimentation, know how to stiffen, stable, and strengthen their kite design.</p>	<p>Cycle A No DT Planning</p>	<p>Cycle A <b>Textiles – Make do and Mend</b> L.I. To be able to investigate and analyse a range of existing products that address a real-life problem during the WWII era. <i>(rationing/make, do mend campaign, designers who helped in the era)</i> L.I. To be able to use research to inform innovative design and generate own design criteria. <i>(create a mood board that evoke a chosen theme, style or concept).</i> L.I. To be able to communicate a design using a computer programme. L.I. To know how to use a use a number of different stitches creatively to produce different patterns and textures. L.I. To be able to make choices, based on functional and aesthetic qualities, on a wide range of materials and components to create a high-quality prototype. L.I. To be able to generate own design criteria and critique a product against these. <b>Key knowledge:</b> Know that rationing had an impact upon the way in which people bought clothing and other products during the WWII era. Know what the make, do, mend campaign was and how it affected clothing of the era. Know how to create a mood board and how they are used to inform a design. <b>Vocabulary:</b> Evoke, theme, style, concept, innovative, embroidery, textual effects, cross stitch</p>

		<p>Know how to use a given criteria to critically evaluate their own design of a kite.</p> <p><b>Vocabulary:</b> Stiffen, strengthen, stable, criteria, evaluate, product, design, features, components, join.</p>			<p><b>Progression for Stitching:</b> Y5 Introduce a cross stitch in embroidery. Use a variety of techniques, e.g. printing, dyeing, weaving and stitching to create different textural effects. Demonstrate experience in combining techniques to produce an end piece: embroidery over tie dye. Show awareness of the skills involved in aspects such as knitting, lace making. Continue to change and modify threads and fabrics.</p> <p>Y6 Design, plan and decorate a fabric piece. Experiment with a variety of techniques. Use a number of different stitches creatively to produce different patterns and textures. Recognise different forms of textiles and express opinions on them.</p>
<p><b>Cycle (B)</b> <b>2023 - 2024</b></p>		<p>No DT Planning</p>	<p><b>Cycle B</b></p>	<p>No DT Planning</p>	<p><b>Cycle B</b></p> <p><b>Food Tech – Making bread</b></p> <p>L.I. To understand where the ingredients come from to make bread and how it is processed today.</p> <p>L.I. To know how Elizabethan meals, including bread, were made and processed.</p> <p>L.I. To know the health impact of eating bread in the past and today. <i>(Staple diet in Elizabethan times)</i></p> <p>L.I. To be able to research and design ideas for bread making, communicating these ideas using ICT.</p> <p>L.I. To know how to prepare and cook traditional Elizabethan bread.</p> <p>L.I. To be able to generate a design-criteria and evaluate the product against these.</p> <p><a href="https://www.warburtons.co.uk/our-company/sustainability/teaching-resources/bread-making-project/">https://www.warburtons.co.uk/our-company/sustainability/teaching-resources/bread-making-project/</a></p>

						<p>*Maths project – how to feed a family cheaply including bread. Create a set of 3 cheap meals in a day.</p> <p><b>Key knowledge:</b>          Know where the ingredients for bread comes from, how they are grown and how they are processed today.          Know how to compare the process of bread making in the Elizabethan era, along with other traditional meals of the time.          Understand the health impacts of eating bread today and in the past.          Know how to use a computer programme to design a bread recipe.          Know how to prepare and make a traditional Elizabethan bread.</p> <p><b>Vocabulary:</b>          Sustainability, processed, staple, traditional, diet.</p>
--	--	--	--	--	--	--

## Summer 1

	EYFS	Years 1 & 2	Years 3 & 4		Years 5 & 6	
<b>Cycle (A)</b> <b>2022 - 2023</b>		No DT Planning	<b>Cycle A</b>	<b>Food Tech – Pot Pies</b> L.I. To be able to apply principles of a healthy, varied diet when preparing a pot pie dish. <i>(Look into the nutritional value of food items being used in the pot pies)</i> L.I. To know where and how the ingredients used in making pot pies are grown and processed. <i>(ingredients, vegetables, how they are made)</i> L.I. To be able to investigate a range of products, evaluating and suggesting improvements.	<b>Cycle A</b>	No DT Planning

			<p><i>(Use this lesson to inform their decision for the ingredients to be used in their own pot pies)</i></p> <p>L.I. To be able to communicate and design a recipe for a pot pie using a computer programme.</p> <p><i>(Encourage the children to be innovative and resourceful when making choices of fillings/design)</i></p> <p>L.I. To be able to use a variety of tools and cooking techniques when making a pot pie.</p> <p>L.I. To be able to evaluate a product, using a given set of criteria, making suggestions on how to improve it, either through taste or aesthetic qualities.</p> <p><b>Key knowledge:</b></p> <p>Know what a healthy diet consists of and understand why.</p> <p>Know the nutritional value of ingredients in pot pies today and in the past.</p> <p>Know how the ingredients used in pot pies are grown, cultivated, farmed and processed in the UK.</p> <p>Know how to use information gathered from other sources to inform a recipe design.</p> <p>Know what ingredients go into the making of a pot pie.</p> <p>Understand the process of making a pot pie, using the correct cooking utensils, weighing out ingredients and following a recipe correctly.</p> <p>Know how to use a given set of criteria to evaluate their own and others' pot pies, suggesting ways to improve them, either through taste or aesthetic qualities.</p> <p><b>Vocabulary:</b></p> <p>Principle, health, varied, resourceful, innovative, processed, criteria, evaluate, aesthetic, principles, cultivated, farming, innovative,</p>		
--	--	--	--	--	--

Cycle (B) 2023 - 2024		No DT Planning	Cycle B	No DT Planning	Cycle B	No DT Planning
--------------------------	--	----------------	---------	----------------	---------	----------------

## Summer 2

	EYFS	Years 1 & 2		Years 3 & 4		Years 5 & 6
Cycle (A) 2022 - 2023	<p><b>EYFS - Expressive arts and design</b> ELG Creating with materials</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Share their creations, explaining the process they have used.</p> <p>Make use of props and materials when role playing characters in</p>	<p><b>Cooking and Nutrition- Tropical Fruit Smoothies</b> L.I. To be able to say where food comes from. <i>(Growing of fruits and vegetables)</i> L.I. To be able to explore and evaluate existing products. <i>(Taste testing sessions, selecting chosen fruits and vegetables for final product-Given criteria to use).</i> L.I. To be able to use our understanding of what a healthy balanced diet consists of when making choices for our smoothie ingredients. L.I. To be able to communicate a design through talking and drawing using a given template. L.I. To be able to select and use a wide range of tools and equipment to create a smoothie. L.I. To be able to evaluate a product against a given criteria.</p>	Cycle A	No DT Planning	Cycle A	<p><b>Structures – Build a shelter</b> L.I. To be able to use research to inform our design of a shelter. L.I. To be able to communicate a design using exploded diagrams. <a href="https://www.stem.org.uk/resources/elibrary/resource/446794/exploded-views">https://www.stem.org.uk/resources/elibrary/resource/446794/exploded-views</a> <i>(If possible, using ICT and link to maths)</i> L.I. To know how to build more complex structures, thinking about how to stabilise and strengthen them. <a href="https://www.stem.org.uk/resources/elibrary/resource/446809/stronger-structures">https://www.stem.org.uk/resources/elibrary/resource/446809/stronger-structures</a> L.I. To be able to create a cross sectional design, using my knowledge of how to create a strong structure to inform my design. L.I. To be able to select from a wide variety of tools, equipment and materials when recreating a design. L.I. To be able to create own design criteria to critique each structure against. <b>Key knowledge</b> Know what an exploded diagram is and how to draw one.</p>

	<p>narratives and stories.</p> <p><b>EYFS – Physical development</b>          ELG Fine motor          Use a range of small tools, including scissors, paintbrushes and cutlery.</p>	<p><b>Key knowledge</b>          Know where and how certain fruits and vegetables are grown.          Say what they like and dislike about existing smoothies, describing the tastes.          Know how to communicate their likes and dislikes, either through talk or recording in a given chart.          Know which food items are healthy/unhealthy and explain why.          Using a given template, know how to communicate a design through drawing and labelling a picture.          Communicate through discussion, what they like/dislike about their smoothie.  <b>Vocabulary:</b>          Existing, healthy, unhealthy, evaluate, product, fruit, vegetables, balanced diet, tools, equipment.</p>		<p>Know what a cross sectional design is and how to draw one.          Know how to strengthen a structure.          Know and use key vocabulary linked to evaluating each structure. (Strong, structure, adapt, design, evaluation, feedback, critique, mark out, measure, modify, natural materials, plan view, reinforce, prototype, weak)          Know how to use a variety of tools.  <b>Vocabulary:</b>          Exploded diagram, cross sectional diagram, strengthen, structure, adapt, critique, reinforce, prototype, structure.</p>
<p><b>Cycle (B)          2023 - 2024</b></p>	<p><b>EYFS - Expressive arts and design</b>          ELG Creating with materials          Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.          Share their creations, explaining the process they have used.          Make use of props and materials when role playing</p>	<p><b>Waste not want not - Cooking and nutrition - Salads</b>          L.I. To be able to research how local food (UK) is grown.  <i>(Opportunity for a local visit to a local farm/farm shop/market)</i>          L.I. To be able to use my knowledge of healthy food to inform my design.  <i>(Making a salad, select from a variety of vegetables, sauces and cheese to go in the salad.)</i>          L.I. To be able to use a range of ingredients when making a salad.          (After lesson 3- do a taste testing session- children to use a tally chart to see which salads they liked the best (blind test would be fun)</p>	<p><b>Cycle B</b>  <b>Textiles – Viking Coin Bags</b>  <i>Continue running stitch – introduce a back stitch.</i>          L.I. To be able to research existing products, evaluating using a given criteria.  <i>(look at a variety of small bags)</i>          L.I. To be able to design a coin bag through discussion, sketches and pattern pieces.  <i>(Pattern pieces Y4 and design an image to use back stitch for a letter/symbol)</i>          L.I. To be able to thread a needle independently, applying decoration using beads and buttons.          L.I. To be able to be able to use the running stitch to embroider an image/symbol on our coin bag.  <i>(Include both L.I. in one lesson)</i></p>	<p><b>Cycle B</b>  <b>Textiles – Sewing an Emblem for a new football team</b>          Cross stitch and a number of different stitches <i>(Continue the running and back stitch)</i>          L.I. To be able to use research to inform a design.          L.I. To be able to use annotated sketches when designing a product.          L.I. To know how to use a variety of stitches. <i>(Practice stitches (Y5 focus on cross stitch – Y6 continue cross, running, whip, back)</i>          L.I. To be able to draw a design onto cross stitch paper. <i>(Look at a selection of cross stitch images for ideas.)</i>          L.I. To be able to create a high-quality prototype using a cross stitch design.          L.I. To be able to evaluate and critique others designs, suggesting ways to improve a product.</p>

	<p>characters in narratives and stories.</p> <p><b>EYFS – Physical development</b></p> <p>ELG Fine motor</p> <p>Use a range of small tools, including scissors, paintbrushes and cutlery.</p>	<p>L.I. To know how to use tools safely when cutting and chopping ingredients.</p> <p>L.I. To be able to evaluate a product.</p> <p><i>(Use the taste test session to support this lesson. Did they include all the features of a healthy salad?)</i></p> <p>L.I. To be able to use a given criteria to improve my work.</p> <p><i>(What are the key features that the salad must be? Healthy, filling, taste nice, include a variety of vegetables, crunchy? How would they improve this? Use the taste testing session to support. Use discussions and written comments.)</i></p> <p><b>Key knowledge:</b></p> <p>Know where and how some vegetables and fruits are grown in the UK.</p> <p>Know which food items are healthy and why.</p> <p>Know what a balanced diet consists of.</p> <p>Know the safety of using a knife, how to hold fingers when cutting safely and sensibly.</p> <p>Know how to evaluate their smoothie and suggest ways to improve it.</p> <p><b>Vocabulary:</b></p> <p>Balanced, diet, nutrition, vitamins, minerals, fruit, vegetables, healthy, unhealthy, grown, produced, farmed, criteria, evaluate, improve.</p>	<p>L.I. To be able to use a back stitch/running stitch to enclose our coin bags.</p> <p>L.I. To be able to evaluate my design using a given criteria.</p> <p><b>Key knowledge:</b></p> <p>Know what a running and back stitch is and how to use them effectively and accurately.</p> <p>Know how to communicate my research through drawings and labels.</p> <p>Know and use the key vocabulary; back stitch, running stitch, embroidery, embroider, emblem, image, material, fabric, decoration, criteria, evaluate, improve.</p> <p>Know how to thread a needle.</p> <p>Know what a coin bag is and what they were used for.</p> <p><b>Vocabulary:</b></p> <p>Running stitch, back stitch, research, thread, decoration, fabric, emblem, embroidery, embroider.</p> <p><b>Progression for stitching</b></p> <p><i>Y3 Begin to thread a needle independently. Continue to use a running stitch and introduce a back stitch.</i></p> <p><i>Apply decoration using beads, buttons, feathers etc.</i></p> <p><i>Begin to modify threads and fabrics, knotting, fraying, fringing, pulling threads, twisting, plaiting.</i></p> <p><i>Y4 Thread a needle independently. Use a running and back stitch.</i></p> <p><i>Apply decoration using needle and thread: buttons, sequins. Gain experience in applying colour by printing and using fabric crayons/ paints.</i></p> <p><i>Change and modify threads and fabrics as in Y3.</i></p>	<p><b>Key knowledge</b></p> <p>Know what a cross, whip, running and back stitches are and how they are used.</p> <p>Know how to use a cross, whip, running and back stitches.</p> <p>Know how to use research to inform their own design of an emblem.</p> <p>Know how to create annotated sketches when designing their emblem.</p> <p>Know how to draw a design onto cross stitch paper and use this to create a cross stitch image.</p> <p>Know how to evaluate and critically evaluate their own and others' designs, suggesting ways to improve them.</p> <p><b>Vocabulary:</b></p> <p>Running, back, whip and cross stitch, emblem, annotated, cross stitch, high quality prototype.</p> <p><b>Progression for Stitching</b></p> <p><i>Y5 Introduce a cross stitch in embroidery. Use a variety of techniques, e.g. printing, dyeing, weaving and stitching to create different textural effects. Demonstrate experience in combining techniques to produce an end piece: embroidery over tie dye. Show awareness of the skills involved in aspects such as knitting, lace making. Continue to change and modify threads and fabrics.</i></p> <p><i>Y6 Design, plan and decorate a fabric piece. Experiment with a variety of techniques. Use a number of different stitches creatively to produce different patterns and textures. Recognise different forms of textiles and express opinions on them.</i></p>
--	---	---	--	---