



## Subject- Design and Technology



### Threshold Concepts and Milestones

Threshold Concept		Foundation Stage 2	Content
<p><b>Master practical skills</b> This concept involves developing the skills needed to make high quality products (we have highlighted a range of skills but they may be added to or changed)</p>	Food	<ul style="list-style-type: none"> <li>• Cut or grate ingredients safely and hygienically with support.</li> <li>• As a group measure or weigh using cups or balance scales.</li> <li>• Mix ingredients.</li> <li>• Add decoration when appropriate.</li> <li>• Use a range of small tools including cutlery (ELG)</li> </ul>	<p><b>Adult-led activities:</b></p> <ol style="list-style-type: none"> <li>1) Cook: Chinese vegetable noodles/fried rice/stir-fry, vegetable soups - cutting, grating, chopping, weighing</li> <li>2) Make: healthy snacks: fruit salad, fruit kebabs- chopping</li> <li>3) Bake: Chinese fortune cookies, gingerbread biscuits, butterfly cupcakes and use butter cream, sprinkles etc to decorate.- weighing, mixing, decorating</li> <li>4) Fry- pancakes for Shrove Tuesday.</li> </ol> <p>Discuss health + safety regarding hand washing, and during cooking, talk about fire safety, cuts from cutlery, burns etc. <i>Review-</i> How do you like the food? Did we put the correct ingredients in? Was it cooked properly? Does it look/smell nice? What would we do differently in the future?</p> <p><b>Continuous provision:</b> Use playdough/clay and various tools to shape/form/cut Sensory play (rice, cornflakes, lentils) with measuring cups and scales Real food (vegetables) in home corner in Autumn term</p>

		<p><u>Possible Project ideas:</u></p> <ol style="list-style-type: none"> <li>1) making and perfecting playdough through a self-service station</li> <li>2) making various Christmas tree decorations made of gingerbread or other biscuit doughs</li> </ol>
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Use a range of small tools, including scissors. (ELG)</li> <li>• Cut straight lines, and straight line shapes.</li> <li>• Cut curves and circles.</li> <li>• Cut out an image by following a line.</li> <li>• Use different glues for different purposes.</li> <li>• Use sticky tape and masking tape to join items.</li> </ul>	<ul style="list-style-type: none"> <li>• Split pin characters to cut out and assemble</li> <li>• Cutting and sorting sheets</li> <li>• Cutting up material for collages</li> <li>• Collage: exploring PVA and glue sticks</li> <li>• Wrapping presents at Christmas for role play</li> <li>• Exploring making cubes by cutting out cube nets to create toys (eg. Jack in a box), present boxes, storage boxes for play etc.</li> <li>• Box modelling- Using recycled materials to make a variety of things. Chn use sellotape, masking tape and different glues to fix parts together.</li> <li>• Use recycled materials to make boats to try with the gutters</li> </ul> <p><u>Possible Project idea:</u> make an animal habitat</p>
<b>Textiles</b>	<ul style="list-style-type: none"> <li>• Colour and decorate textiles with fabric pens, sequins and buttons. (by gluing)</li> </ul>	<p>Decorating flags, superhero masks, hair bands          Making simple clothes for dolls by cutting fabric and gluing          Make prayer mats</p> <p>To use felt to create a finger/hand puppet. Use different glues (glue gun, PVA etc) to attach pieces together. Use different materials such as ribbon, buttons, texture materials, to add decorations such as eyes, clothes etc. Use textile pens to add further details.</p> <p><u>Possible project ideas:</u></p> <ol style="list-style-type: none"> <li>a) Make flower pictures on fabric</li> <li>b) Create animal patterns on fabric tabards to use for role play</li> </ol>

	<p><b>Electricals and electronics</b></p>	<ul style="list-style-type: none"> <li>• Use battery operated toys, torches, microphones etc.</li> <li>• Explore electronic kits, enabling a light to be lit.</li> </ul>	<ul style="list-style-type: none"> <li>• Dark den: colour mixing with torches, reading books with torches, Put up Christmas lights, use invisible pen with UV light. Explore shadows with torches - chn making torch discs to shine the light through</li> <li>• Explore light trays (would need to buy one/make one)</li> <li>• Microphones: at outside stage area- perform to peers, record messages to others</li> <li>• Talking clip-boards (borrow from nursery) in role pay</li> <li>• Use electronic kits as a focus activity. Create instructions to create a simple circuit to light up a bulb. Use lemon or potato based circuits too</li> <li>• In structured play, expose children to a series of battery-operated toys such as remote-control cars, toys that include sound/music, torch projectors etc. What do you need to do in order for it to work?</li> <li>• Use the Beebot and explore giving accurate instructions to help it correctly negotiate the space in the classroom.</li> </ul>
	<p><b>Computing</b></p>	<ul style="list-style-type: none"> <li>• Use a draw/paint software and apps.</li> </ul>	<p>This will be covered by all year groups in the Computing Curriculum.</p>
	<p><b>Construction</b></p>	<ul style="list-style-type: none"> <li>• Use construction kits to practice joining materials by nailing, or using nuts and bolts.</li> </ul>	<ul style="list-style-type: none"> <li>• Use mechanix kits (or similar) and create own joints.</li> <li>• Explore Tap Tap Art set and use it to represent collage pictures inspired by Henri Matisse's snail. Think about shape, overall appearance and how you will attach the materials to create an affect.</li> <li>• Use straws/matches and marshmallows to create animals, flowers, buildings etc.</li> <li>• Chn will explore vehicles and making various vehicles using a variety of materials in the Autumn term as part of continuous provision.</li> </ul> 

	<p><b>Mechanics</b></p>	<ul style="list-style-type: none"> <li>• Use construction kits to create a model that moves or has moving parts.</li> </ul>	<ul style="list-style-type: none"> <li>• Use Duplo, mobile (F1's), Lego, stickle bricks (that have many wheeled parts) to construct basic vehicles, windmills, fairground rides, invent toys (during Discover term) etc.</li> <li>• Making robot/doll using nuts and bolts. Use the materials to make moving arms and legs.</li> <li>• To use and create a basic pulley system to transport stones in the 'quarry area' outside.</li> <li>• Ramps + gutters from top of playground, - practise building moving machines</li> <li>• Experiment with paper aeroplanes, plastic gliders, zip-wire loo roll + balloon rockets, balloon-CD hovercraft</li> <li>• Experiment with ramps and their own made wheeled vehicles</li> <li>• Rubber bands bow/arrow to fly the lolly sticks</li> </ul>
<p><b>Design, make, evaluate and improve</b> This concept involves developing the process of design thinking and seeing design as a process.</p>	<p><b><u>DT project:</u></b></p>	<ul style="list-style-type: none"> <li>• Share their creations, explaining the process they have used. (ELG)</li> </ul>	<p><b>Problem/need:</b> It is almost Christmas time and we don't have any decorations for our tree! Can you help to make some for our class tree?</p> <p><b>Design Brief:</b> Make a Christmas tree decoration for our class tree. You will need to think about materials, size, aesthetics</p> <p><b>Research:</b> As a focused small group activity, each week/fortnight expose the children to a different material that they could potentially use for their decorations. Provide activities using, but not exclusively:</p> <ul style="list-style-type: none"> <li>• Salt dough</li> <li>• Gingerbread</li> <li>• Clay</li> <li>• Play dough</li> <li>• Twigs/sticks</li> <li>• Art straws</li> </ul>

- Foam sheets
- Pine cones
- Dried orange slices
- Cardboard

Alongside exploring materials, to also incorporate different tools to manipulate these materials such as:

- Play dough cutters
- Playdough tools
- Rolling pins
- Scissors
- Patterned stamps
- Stencils

**Generating ideas** -discuss as a whole class:

- What style of decorations do you want to make?
- What materials do we need to use to make it durable and lightweight?
- How do we want it to look? Do we want it to be shiny? Sparkly? Resemble actual objects?
- Look at different shapes that we can use to make decorations, which ones do we think will be most effective?
- Look at potential options for materials and try out a few as a whole class.

**Specification:**

Chn work in pairs to talk about ideas and help to think about what they want to do. Chn then to draw their own individual design, justify their choices and present this to a small group.

			<p><b>Evaluate:</b> Each child presents their idea to a group of chn, listen to their peers' views (what they like, what they'd change).</p> <p><b>Make-evaluate-redesign:</b> Chn to make their decoration using their design ideas. Chn will then share their idea with a small group and explain what worked well and what they would change in the future. Take feedback from peers and review their decoration. Chn will then make another decoration, implementing changes that they have decided would improve their decoration. Chn to then present this idea to their small group and think about how their changes have changed their decoration. Is this one better? Why? Why not? Chn to receive further feedback and time to review their decoration. Chn will then make a final decoration that supports changes and developments discussed during self-reflection and peer feedback.</p> <p><b>Exhibition:</b> Decorations will be displayed on the classroom Christmas tree for all to see. These will be taken home at the end of term.</p>
<p><b>Take inspiration from design throughout history</b> This concept involves appreciating the design process that has influenced the products we use in everyday life.</p>		<ul style="list-style-type: none"> <li>• Explore objects and designs and talk about likes and dislikes. Use the internet to investigate how items are made.</li> </ul>	<p><b>Research:</b> Chn will explore decorations, by using non-fiction texts, fictional stories, YouTube videos, Cbeebies celebration series of videos, from:</p> <ul style="list-style-type: none"> <li>• other cultures and countries</li> <li>• looking at the development and changes that have happened through history and the different purposes they serve.</li> <li>• Looking at actual decorations, including a variety of materials and styles.</li> <li>• Use YouTube video examples of how to make decorations</li> </ul>

			<ul style="list-style-type: none"><li>• Share decorations that are traditional in our families and explain why they are important and perhaps why they have survived the test of time.</li></ul> <p><b><u>Materials and making:</u></b> <i>through continuous provision- give chn lots of different materials to explore and work with to make different styles of decorations. (to support small focused group, taught support)</i></p> <p><b><u>Show &amp; tell:</u></b> chn to talk to the class about their work- how they made it, what they used etc. Class to discuss what they like/dislike about them and how they think these could be improved? Prompt chn to go back and make these better.</p>
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