

**Sandon Primary Academy – Design Technology**  
**Year 5**

Autumn Term	Spring Term	Summer Term																																																										
Where we use a range of tools and equipment to design, make and evaluate our product.																																																												
Theme: Textiles: Stuffed toys	Theme: Mechanical systems: Pop-up book	Theme: Food: What could be healthier?																																																										
<p><b>Key Objectives:</b></p> <p><b>Lesson 1: Evaluate existing products and generate ideas</b></p> <ul style="list-style-type: none"> <li>I can generate ideas through brainstorming and identify a purpose for a stuffed toy</li> <li>I can explore existing stuffed toys and discuss strengths or improvements that could be made</li> </ul> <p><b>Lesson 2: To design a stuffed toy</b></p> <ul style="list-style-type: none"> <li>I can draw up a specification for my design</li> <li>I can decide on a theme for my stuffed toy</li> <li>I can develop a clear idea of what has to be done, planning how to use materials, equipment and processes</li> <li>I can complete an annotated design</li> </ul> <p><b>Lesson 3: Create a template and practise sewing skills</b></p> <ul style="list-style-type: none"> <li>I can make a paper template</li> <li>I know how to ensure that my template is proportional</li> <li>I can refer back to my design whilst making my template</li> <li>I can thread a needle</li> <li>I can practise running stitch and learn blanket stitch to join two pieces of fabric together</li> </ul> <p><b>Lesson 4: Create and add decorations to fabric</b></p> <ul style="list-style-type: none"> <li>I can create strong and secure stitches (blanket, running, cross stitch)</li> <li>I can use applique to attach pieces of fabric decoration</li> <li>I can use stitches to decorate fabric</li> </ul> <p><b>Lesson 5: Assemble the components of a stuffed toy</b></p> <ul style="list-style-type: none"> <li>I can use a blanket stitch to join two pieces of fabric</li> <li>I can stuff my toy carefully, repairing any holes or gaps</li> <li>I can evaluate my product so far and make any improvements necessary</li> </ul> <p><b>Lesson 6: Evaluate</b></p> <ul style="list-style-type: none"> <li>I can evaluate my stuffed toy</li> <li>I can evaluate my product against the original design specification and suggest ways in which it could be improved</li> <li>I can evaluate my stuffed toy personally and seek evaluation from others</li> </ul>	<p><b>Key Objectives:</b></p> <p><b>Lesson 1: Existing products and mechanisms/pop up structures</b></p> <ul style="list-style-type: none"> <li>I can understand the design brief for this project</li> <li>I can investigate and analyse a range of existing pop-up books</li> <li>I know that input is the motion used to start a mechanism and output is the motion that happens as a result of starting the input</li> <li>I know that structures use the movement of the pages to work</li> <li>I know that mechanisms control movement</li> </ul> <p><b>Lesson 2: Design book</b></p> <ul style="list-style-type: none"> <li>I can design a book made up of a front cover and four pages and include a mixture of structures and mechanisms within it</li> <li>I can follow a design brief when designing my book</li> <li>I can create detailed labelled drawings of each page</li> <li>I can evaluate my design and ensure that it meets the criteria</li> </ul> <p><b>Lesson 3: Follow a design brief to make a pop-up book</b></p> <ul style="list-style-type: none"> <li>I can use paper, card and glue to make my book structure</li> <li>I can make mechanisms and/or structures as detailed in my design template by using sliders, pivots and folds to produce movement</li> <li>I can measure and mark out accurately</li> <li>I can cut and join with accuracy to ensure a good-quality finish</li> </ul> <p><b>Lesson 4: Layers and spacers</b></p> <ul style="list-style-type: none"> <li>I can use layers and spacers to cover the working of mechanisms</li> <li>I can complete the mechanisms and structures as detailed in my design template</li> <li>I can make my book look neater and more attractive by using layers using spacers to hide relevant parts of my mechanisms</li> <li>I can evaluate my book so far and make any improvements</li> <li>I can add the story using pictures and captions</li> </ul> <p><b>Lesson 5: Evaluate</b></p> <ul style="list-style-type: none"> <li>I can evaluate my ideas and products against my own design criteria and consider the views of others to improve my work</li> <li>When evaluating, I can consider the needs and preferences of the intended user</li> <li>I can share my pop-up book with year 1 children and use their feedback in my evaluation</li> </ul>	<p><b>Key Objectives:</b></p> <p><b>Lesson 1: To know where food comes from</b></p> <ul style="list-style-type: none"> <li>I know that beef is the name of meat from cattle (cows)</li> <li>I know how beef is reared and processed</li> <li>I have an understanding of the ethical issues around the way in which cattle should be farmed</li> </ul> <p><b>Lesson 2: To understand the term 'healthy'</b></p> <ul style="list-style-type: none"> <li>I know what foods make up a balanced diet</li> <li>I can taste two different sauces and predict which is healthier</li> <li>I know how a recipe can be adapted to make it healthier</li> <li>I can use keywords to research for alternative ingredients for a well-known dish</li> <li>Based on my research I can suggest healthy substitutions and additions to a recipe</li> <li>I can use results of information sources, including ICT, when developing design ideas</li> </ul> <p><b>Lesson 3: Adapt a traditional recipe</b></p> <ul style="list-style-type: none"> <li>I can know that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients</li> <li>I can calculate and compare two adapted bolognese recipes using a nutritional calculator and I can decide which recipe is healthier</li> <li>I can write an amended method for my recipe to incorporate the relevant changes to ingredients</li> </ul> <p><b>Lesson 4: Make a complete product</b></p> <ul style="list-style-type: none"> <li>I can use equipment safely, including knives, hot pans and hobs</li> <li>I know how to avoid cross-contamination</li> <li>I can carefully follow a method to make a recipe</li> <li>I know how to chop an onion like a real chef</li> <li>I can follow a recipe and weigh and measure accurately</li> <li>I can design appealing packaging that reflects my recipe</li> </ul> <p><b>Lesson 5: Tasting and evaluating</b></p> <ul style="list-style-type: none"> <li>I can taste my own sauce and reflect on how it turned out</li> <li>I can evaluate my sauce against my original design criteria</li> <li>I can reflect on how healthy my final sauce was</li> <li>I can taste other children's sauce and offer praise or constructive feedback</li> </ul>																																																										
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**Cross-Curricular Links:**

**Autumn: N/A**

**Spring: N/A**

**Summer:** Computing: Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Maths: Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)

**Enrichment:**

**Autumn:**

**Spring:**

**Summer: Food tasting and use of the cookery room**

**Visit to Ormiston Meridian for practical sessions**

**Key DT Skills which can be revisited throughout other Subject Areas:**

Select from and use a wider range of tools and equipment to perform practical tasks

Measure and mark out accurately

Cut and join with accuracy to ensure a good-quality finish

Use results of investigations, information sources, including ICT when developing design ideas

**Key DT Days:**

**National Curriculum: By the end of KS2, pupils will be able 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

<p><b>Resources:</b>          Variety of coloured fabric (preferably felt)          Pins          Binca fabric to practise sewing          Thread          Needles          Buttons          Sequins</p>	<p><b>Resources:</b>          Selection of pop-up books/greeting cards          A3 card (3 per book)          Split pins          Hole punchers          Scrap pieces of card for mechanisms          Pipe cleaners          Felt</p>	<p><b>Resources:</b>          Large saucepans          Bowls          Tablespoons          Grater          Wooden spoons          Chopping boards          Peelers</p>
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Knives  
 Garlic crushers  
 Empty, clean jars (1 pp)  
 Thin card