





YEAR: 3

TERM: Autumn 2

TITLE: Design, Make and Evaluate a Storybook (Mechanical Systems - Levers and Linkages)

	COHERENCE	CREDIBILITY	CREATIVITY	COMPASSION	COMMUNITY
<p>REVISION / REMIND / REVISIT</p> <p>Explored and used mechanisms such as flaps, sliders and levers. Gained experience of basic cutting, joining and finishing techniques with paper and card.</p>	<p>THE BIG QUESTION</p> <p>How Can We help younger (Reception) children understand The Nativity Story?</p> <p>LINKS to NC/rationale:</p> <p>Design Generate realistic ideas and their own design criteria through discussion, focussing on the needs of the user Use annotated sketches and prototypes to develop, model and communicate ideas</p> <p>Make Order the main stages of making Select from and use the appropriate tools with some</p>	<p>Knowledge Acquired Investigative and Evaluative Activities: Investigate, analyse, and evaluate books and other products which have a range of lever and linkage mechanisms Develop understanding - Who might it be for? What is its purpose? How will you make it move? How do you think the mechanism works? What materials have been used? How effective do you think it is and why? What else could move?</p>	<p>A variety of contributions to a classroom display based on the Big Question</p> <p>Research into lever and linkage mechanisms</p> <p>Photos/mock-ups of levers and linkages</p> <p>Record what Reception children say about what style of images they like to look at when they are reading</p> <p>Designs for each page - annotated sketches and prototypes</p>	<p>Are the children engaged in the Story?</p> <p>After reading the story, ask the Reception children questions to find out what they have understood and learned about The Nativity Story.</p> <p>The 'answers' to the BIG QUESTION</p> <p></p> <p>DEEP DIVE</p>	<p>Share the Nativity story with parents</p> <p>Display the story centrally so that the whole school community can see a version of The Nativity Story using mechanisms</p> <p></p>
			<p>Skills/Concepts Explored Focused Tasks: Explore a range of lever and linkage mechanisms Develop understanding: Which card strip is the lever?</p>		

	<p>accuracy to cut, shape and join Paper and card Select from and use finishing techniques suitable for the product they are creating</p> <p>Evaluate Investigate and analyse books and other products with lever and linkage mechanisms Evaluate their own products and ideas against criteria and user needs as they design and make</p> <p>Technical Knowledge and Understanding Understand and use lever and linkage mechanism Distinguish between fixed and loose pivots Know and use technical vocabulary relevant to the project</p>	<p>Which card strip is acting as the linkage? Which part of the system is the input and which part is the output? What does the type of movement remind you of? Which are the fixed pivots, and which are the loose pivots? Demonstrate the correct and accurate use of measuring, marking out, cutting, joining and fastening skills and techniques</p>	<p>Storybook pages</p> <p>Discuss what they would like the Reception children to understand/learn from the reading of the storybook</p>	<div data-bbox="1435 269 1753 778" style="border: 1px solid black; background-color: #ffffcc; padding: 5px;"> <p>Health and safety Pupils should be taught to work safely, using tools, equipment, materials, components and techniques appropriate to the task. Risk assessments should be carried out prior to undertaking this project.</p> </div>	
<p>ASSESSMENT CRITERIA:</p> <ul style="list-style-type: none"> • Gather information about user needs; describe the user, purpose and design features of their products. • Generate realistic ideas based on user needs; use a range of drawing skills and discussion. • Order the main stages of making; select suitable materials. 					

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| | <ul style="list-style-type: none">• Follow procedures for safety and hygiene; measure, cut, shape and join with some accuracy.• Evaluate their ideas and products against their design criteria.• Investigate how well products have been designed and made.• Know that materials have functional and aesthetic qualities; use the correct technical vocabulary. |
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Cross Curricular Links

Spoken language - participate in discussion and evaluation of books and, where available, other products with moving pictures. Ask relevant questions to extend knowledge and understanding. Build technical vocabulary. Consider and evaluate different viewpoints

Mathematics - use the vocabulary of position, direction and movement. Use a ruler to measure to the nearest cm, half cm or mm.


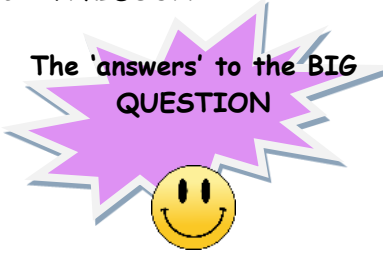


Art and design - use and develop drawing techniques. Use colour, pattern, line, shape.

Computing - digital graphics and text could be incorporated into final products as the background or moving parts.

YEAR: 3

TERM: Spring 2

TITLE: Design, Make and Evaluate an Apron (Textiles - 2D Shape to 3D Product)

	COHERENCE	CREDIBILITY	CREATIVITY	COMPASSION	COMMUNITY
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">REVISION/ REMIND / REVISIT Have joined fabric in simple ways by gluing and stitching. Have used simple patterns and templates for marking out. Have evaluated a range of textile products.</p>	<p style="text-align: center;">THE BIG QUESTION</p> <div style="text-align: center;">  <p><i>Can we design and make a suitable apron to prepare food for our families?</i></p> </div> <p>LINKS to NC/rationale:</p> <p>Design Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific users Produce annotated sketches, [prototypes, final product sketches and pattern pieces</p> <p>Make Plan the main stages of making Select and use a range of appropriate tools with some accuracy - cutting, joining, and finishing</p>	<p>Knowledge Acquired Investigative and Evaluative Activities: Investigate a range of textile products that have a selection of stitches, joins, fabrics, finishing techniques, fastenings, and purposes. Think about products from the past and what changes have been made in textile production and products eg. the invention of zips and Velcro Disassemble textile products to gain an understanding of 3D shape, patterns, and seam allowances. Develop understanding - What is its purpose? What properties/characteristics does the fabric have? Why has this fabric been chosen? How has the fabric been joined together? How has it been decorated? Does its decoration have a purpose?</p>	<p>A variety of contributions to a classroom display based on the Big Question</p> <p>Research aprons</p> <p>Examples of stitching techniques, sewing 2 pieces of fabric together</p> <p>Examples of the children's finishing techniques</p> <p>Investigate printing</p> <p>Children's creative and original designs</p> <p>Photos of the children making their aprons</p>	<p>Children understand that they need to be safe when cooking - Are the aprons suitable and safe? (no ties/decorations that could drop onto the food preparation area etc) Does the apron do what it is designed to do and cover the areas it is designed to?</p> <p>Understand how a key individual has influenced the development of the chosen product and fabric CATH KIDSON</p> <div style="text-align: center;">  <p>The 'answers' to the BIG QUESTION</p> </div> <div style="text-align: center; margin-top: 10px;">  <p>DEEP DIVE</p> </div>	<p>Children to model their aprons during their Summer Showcase</p> <div style="text-align: right;">  </div>

	<p>Select fabrics and fastenings according to their functional characteristics - strength and aesthetic qualities eg. pattern</p> <p>Evaluate</p> <p>Investigate a range of 3D textile projects relevant to the project</p> <p>Test their products against the original design criteria and with the intended user</p> <p>Consider others' views</p> <p>Technical Knowledge and Understanding</p> <p>Know how to strengthen, stiffen, and reinforce existing fabrics</p> <p>Understand how to securely join 2 pieces of fabric together</p> <p>Understand the need for pattern and seam allowances</p> <p>Know and use technical vocabulary relevant to the project</p>	<p>Skills/Concepts Explored</p> <p>Focused Tasks:</p> <p>Explore a range of stitching techniques and sew 2 pieces of material together, demonstrating the use of, and the need for seam allowances</p> <p>Use a textile project that they have taken apart to create a paper pattern using 2D shapes</p> <p>Explore a range of fabrics to assess if they would be suitable</p> <p>Test finishing techniques - applique, embroidery, fabric pens/paints, printing</p> <p>Develop understanding: Which joining technique makes the strongest seam? Why? Which stitch is appropriate for the purpose? How can you stiffen your fabric? Which fastening is most suited to the purpose and user? What decorative techniques have been used? What effect do they have?</p> <p>Key vocabulary:</p> <p>Fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance</p>	<p>Photos of the children wearing their aprons when preparing canapes</p> <p>Photos of the children wearing their aprons at the Summer Event</p>	<p>Health and safety</p> <p>Pupils should be taught to work safely, using tools, equipment, materials, components and techniques appropriate to the task. Risk assessments should be carried out prior to undertaking this project.</p>	
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		User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces			
<p>ASSESSMENT CRITERIA:</p> <ul style="list-style-type: none"> • Gather information about user needs; describe the user, purpose, and design features of their products. • Generate realistic ideas based on user needs; use a range of drawing skills and discussion. • Order the main stages of making; select suitable materials. • Follow procedures for safety and hygiene; measure, cut, shape, and join with some accuracy. • Evaluate their ideas and products against their design criteria. • Investigate how well products have been designed and made. • Know that materials have functional and aesthetic qualities; use the correct technical vocabulary. 					

Cross Curricular Links

Science - physical properties of fabrics. Identify and compare the suitability of a variety of fabrics for particular uses.

Spoken language - asking and answering questions to develop understanding. Through discussion, participate actively initiating and responding to comments. Develop technical vocabulary. Give well-structured descriptions of e.g. finishing techniques. Consideration and evaluation of others' viewpoint.

Mathematics - nets of shapes and accurate measurements mm/cm.

History - investigating textiles and textile products from age being studied.

Computing - opportunity to create pattern pieces using a computer program.

Art and design - investigating visual and tactile qualities of fabrics and using colour and pattern appropriately. Use a range of tools and decorative techniques. Develop sketching techniques.

Writing - written evaluation of their product, organising it under e.g. headings, subheadings.



YEAR: 3

TERM: Summer 1/2

TITLE: Design, Make and Evaluate Canapes (Food - Healthy and Varied Diet)

	COHERENCE	CREDIBILITY	CREATIVITY	COMPASSION	COMMUNITY
<p>REVISION / REMIND / REVISIT Know some ways to prepare ingredients safely and hygienically. Have some basic knowledge and understanding about healthy eating and The Eatwell plate. Have used some equipment and utensils and prepared and combined ingredients to make a product.</p>	<p style="text-align: center;">THE BIG QUESTION</p> <div style="text-align: center; border: 2px solid purple; padding: 10px; margin: 10px auto; width: 80%;"> <p>Can we design a delicious snack/canape for an adult?</p> </div> <p>LINKS to NC/rationale: Design Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture, and aroma for an appealing product for a particular user and purpose Use annotated sketches and appropriate information and</p>	<p style="text-align: center;">Knowledge Acquired Investigative and Evaluative Activities:</p> <p>Investigate a range of food products - contents of lunchboxes/selection of foods provided/food from a visit to a local shop. Link to principles of a varied and healthy diet using The Eatwell Plate - What ingredients have been used? Which food groups do they belong to? What substances are used in the products - nutrients, water, fibre Carry out sensory evaluations using a variety of bought food products. Record results eg using a table. Describe taste, texture, smell, appearance Gather information about existing products available Find out how a variety of ingredients are grown and harvested, reared, caught, and processed - Where and when are the ingredients grown? Where do different meats/fish/cheese/eggs come from?</p>	<p style="text-align: center;">A variety of contributions to a classroom display based on the Big Question</p> <p>Photos of the children tasting canapes and making notes as they research different flavour combinations</p> <p>Test flavour combinations on teachers. Teachers vote for the most delicious.</p> <p>Children's canape designs using annotated sketches</p>	<p style="text-align: center;">Discuss nutrition and a healthy diet</p> <p style="text-align: center;">Discuss poverty - is this a barrier to healthy eating or is it possible to find tasty ingredients that are cheap to buy?</p> <p style="text-align: center;">Fairtrade</p> <div style="text-align: center;"> <p>The 'answers' to the BIG QUESTION</p> </div> <div style="text-align: center; background-color: #1f77b4; color: white; padding: 5px; border-radius: 10px; width: fit-content; margin: 10px auto;"> <p>DEEP DIVE</p> </div>	<p style="text-align: center;">Invite families to share canapes together as part of a Community Event - share Tie Dye Art and Music Mountains</p> <p style="text-align: center;">Raise money for Oxfam</p> <p style="text-align: center;">Presentation of money raised to Oxfam</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px; text-align: center;"> <p style="color: red; font-weight: bold; font-size: 1.2em;">S.M.I.L.E</p> <p>Plants against Poverty An enterprise project to raise money including the sale of home grown produce and canapés</p> </div>

	<p>communication technology to develop and communicate ideas</p> <p>Make Plan the stages of a recipe, listing ingredients, utensils, and equipment Select and use appropriate utensils and equipment to prepare and combine ingredients Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics</p> <p>Evaluate Carry out sensory evaluations of a variety of ingredients. Record the evaluations using tables/simple graphs Evaluate the ongoing work and the final product with reference to the design criteria and the views of others</p> <p>Technical Knowledge and Understanding Know how to use appropriate equipment and utensils to prepare and combine food Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared, or caught Know and use relevant technical and sensory vocabulary appropriately</p>	<p>Skills/Concepts Explored Focused Tasks: Learn to select and use a range of utensils and use a range of techniques to prepare ingredients hygienically including bridge and claw technique, grating, peeling, chopping, slicing, mixing, spreading, kneading, and baking. Basic food hygiene practises including the importance of following instructions to control risk. What should we do before we work with food? Why is following instructions important?</p> <hr/> <p>Key vocabulary: Names of products, equipment, utensils, techniques and ingredients Texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury Hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/varied diet Planning, design criteria, purpose, user, annotated sketch, sensory evaluations</p>	<p>Photos of children preparing ingredients</p> <p>Record evaluations using tables/simple graphs</p> <p>Photos of canapes and families enjoying them at Community Event</p>	<p>Health and safety Pupils should be taught to work safely and hygienically, using tools, equipment, techniques and ingredients appropriate to the task. Prior to undertaking this project risk assessments should be carried out, including identifying whether there are children who are not permitted to taste or handle any food ingredients or products.</p>	
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ASSESSMENT CRITERIA:

- Gather information about user needs; describe the user, purpose, and design features of their products.
- Generate realistic ideas based on user needs; use a range of drawing skills and discussion.
- Order the main stages of making; select suitable materials.
- Follow procedures for safety and hygiene; measure, cut, shape and join with some accuracy.
- Evaluate their ideas and products against their design criteria.
- Investigate how well products have been designed and made.
- Know that materials have functional and aesthetic qualities; use the correct technical vocabulary.

Cross Curricular Links

Mathematics and computing - making use of mathematical and computing skills to present results of sensory evaluations graphically. Mass kg/g

Spoken language - developing relevant vocabulary e.g. sensory descriptors/ names of utensils and techniques. Ask relevant questions to extend their knowledge. Consider and evaluate different viewpoints. Use discussion to develop understanding through exploring ideas.

Science - using and developing skills of observing and questioning. Humans get nutrition from what they eat. Discuss changes of state if heat is used.

Art and Design - using and developing drawing skills.

Writing - new vocabulary. Use non-fiction texts such as description, explanation and instructions e.g. recipes. Organise their work using e.g. headings, subheadings.