

Year 3 Design Technology Scheme of Work

Autumn – Pencil Cases (Textiles)

Learning Outcomes –

- To investigate a range of pencil cases
- To practise and compare sewing stitches
- To investigate ways of opening and closing pencil cases
- To be able to sew embellishments to a piece of fabric
- To be able to design a pencil case
- To be able to make and evaluate a pencil case based on a design

Throughout the year

- Describe the purpose of their products
- Share and clarify ideas through discussion
- Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
- Explain their choice of tools and equipment in relation to the skills and techniques they will be using
- Explain their choice of materials and components according to functional properties and aesthetic qualities
- Apply a range of finishing techniques, including those from art and design, with some accuracy
- Refer to their design criteria as they design and make
- Evaluation: Use their design criteria to evaluate their completed products and identify the strengths and areas for development in their ideas and products

Skills:	Design	Make	Evaluate	Technical Knowledge – Textiles	Vocabulary
	• Begin to research others' needs • Show design meets a range of requirements • Follow a given design criteria	• Select suitable tools/equipment, explain choices; begin to use them accurately • Select appropriate materials, fit for purpose. • Work through plan in order	• Look at design criteria while designing and making • Say what I would change to make design better	• Join different textiles in different ways • Choose textiles considering appearance and functionality	➤ Material ➤ Decorate ➤ Design ➤ Fastener ➤ Needle ➤ Seam ➤ Template

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	• Have at least one idea about how to create product • Create a plan which shows order, equipment and tools • Describe design using an accurately labelled sketch and words • Explain how product will work	• Consider how good product will be • Begin to measure, mark out, cut and shape materials/components with some accuracy - Begin to assemble, join and combine materials and components with some accuracy	• Begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose • Begin to understand by whom, when and where products were designed	• Begin to understand that a simple fabric shape can be used to make a 3D textiles project • Think about how to make product strong - Begin to devise a template • Explain how to join things in a different way	➤ Cut ➤ Outline ➤ Stitch ➤ Sew
Spring – Fruity Fairy Cakes (Food and Nutrition)					
Learning Outcomes – • I can research fairy cakes • I can taste a range of fruits and explain which ones I like and would work in my cakes • I can plan a recipe for fruity fairy cakes • I can design a fruity fairy cake • I can make and evaluate fruity fairy cakes I know how seasonal fruits are grown in Britain and further afield					
Throughout the year • Describe the purpose of their products • Share and clarify ideas through discussion					

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- Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
- Explain their choice of tools and equipment in relation to the skills and techniques they will be using
- Explain their choice of materials and components according to functional properties and aesthetic qualities
- Apply a range of finishing techniques, including those from art and design, with some accuracy
- Refer to their design criteria as they design and make
- Evaluation: Use their design criteria to evaluate their completed products and identify the strengths and areas for development in their ideas and products

Skills:	Design	Make	Evaluate	Technical Knowledge – Food & Nutrition	<u>Vocabulary</u>
	• Begin to research others' needs • Show design meets a range of requirements • Follow a given design criteria • Create a plan which shows order, equipment and tools • Describe design using an accurately labelled sketch and words	• Select suitable tools/equipment, explain choices; begin to use them accurately • Select appropriate ingredients, fit for purpose. • Work through plan in order • Begin to measure ingredients with some accuracy • Begin to combine ingredients with some accuracy	• Look at design criteria while designing and making • Say what I would change to make design better • Begin to understand by whom, when and where products were designed • Learn about some chefs/bakers	• Carefully select ingredients • Use equipment safely • Make product look attractive • Think about how to grow plants to use in cooking • -Begin to understand food comes from UK and wider world • Describe how healthy diet= variety/balance of food/drinks • Explain how food and drink are needed for active/healthy bodies. • Prepare and cook some dishes safely and hygienically	➤ Decorate ➤ Design ➤ Healthy ➤ Ingredients ➤ Baking ➤ Whisk ➤ Recipe ➤ Fruit

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				• Grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	
Summer – Moving Toys (Mechanisms: Pneumatics)					
Learning Outcomes – • To investigate a variety of familiar objects that use air to make them work • To investigate techniques for making simple pneumatic systems • To be able to gather ideas for creating moving monsters • To be able to design a monster including a moving pneumatic system • To be able to make a monster with a moving pneumatic part • To be able to evaluate a finished product					
Throughout the year • Describe the purpose of their products • Share and clarify ideas through discussion • Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • Explain their choice of tools and equipment in relation to the skills and techniques they will be using • Explain their choice of materials and components according to functional properties and aesthetic qualities • Apply a range of finishing techniques, including those from art and design, with some accuracy • Refer to their design criteria as they design and make • Evaluation: Use their design criteria to evaluate their completed products and identify the strengths and areas for development in their ideas and products					

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Skills:	Design	Make	Evaluate	Technical Knowledge – Mechanisms: Pneumatics	Vocabulary
	• Show design meets a range of requirements • Follow a given design criteria • Have at least one idea about how to create product • Create a plan which shows order, equipment and tools • Describe design using an accurately labelled sketch and words • Explain how product will work • Make a prototype • Begin to use computers to show design	• Select suitable tools/equipment, explain choices; begin to use them accurately • Select appropriate materials, fit for purpose. • Work through plan in order • Consider how good product will be • Begin to measure, mark out, cut and shape materials/components with some accuracy - Begin to assemble, join and combine materials and components with some accuracy	• Look at design criteria while designing and making • Say what I would change to make design better • Begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose • Begin to understand by whom, when and where products were designed	• Select appropriate tools / techniques • Alter product after checking, to make it better • Begin to try new/different ideas • Use simple lever and linkages to create movement • Use pneumatics to create movement	➤ Toy ➤ Play ➤ Pneumatic ➤ Build ➤ Air ➤ Improvement ➤ Lift ➤ Quality ➤ Character ➤ Features