

Design and Technology

Overview of Units: Key Stage 1

<u>Cycles</u>			
	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
<u>A</u>	Christmas Cookies	Junk Modelling: Baby Bears Chair	Paper Weaving
<u>B</u>	Fruit Kebabs	Pop Up Cards	Sock Animals

National Curriculum:

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

Cycle A: Autumn – Christmas Cookies

DT	<p>Christmas cookies</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and other users based on design criteria To generate, develop, model and communicate their ideas through talking, drawing, templates and, where appropriate, information and communication technology To select from and use a wide range of materials, components, tools and equipment including knives, baking sheet, oven, grater, textiles (oven gloves and tea towel, cleaning products) and ingredients to perform practical tasks. To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria 	<ul style="list-style-type: none"> To be able to follow a recipe Discuss how I want to make a product and why. To describe how something is made - to write a recipe. Cut, chop, mix, roll and knead with increasing skill. To be able to cut food safely. To name tools and know how to use them safely. To use good food handling and food hygiene. To use a balance to weigh ingredients. Y1: To evaluate a range of existing Christmas Cookies Y2 - To evaluate a range of existing Christmas cookies and to understand the food wheel and why foods should be eaten in greater/smaller quantities. 	<ul style="list-style-type: none"> All: Design, create and evaluate Christmas cookies
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Cycle A: Spring – Baby Bears Chair

DT	<p>Junk Modelling: Baby Bear's Chair</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and other users based on design criteria. To generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups. To select from and use a range of tools and equipment to perform practical tasks. (Cutting, shaping, joining) select from and use a wide range of materials and components, including construction materials and textiles To explore and evaluate a range of existing products. To evaluate their ideas and products against design criteria. To build structures, exploring how they can be made stronger, stiffer and more stable. To explore and use mechanisms, such as levers, sliders, wheels and axels. 	<ul style="list-style-type: none"> Y2 - select from a range of materials, giving reasons for choices in relation to design specification, considering suitability and properties of the materials. Y1 - select from a range of materials, evaluating the properties and suitability of some materials. To explain to someone else how I want to make my product and why. To use drawings to describe my intentions and add notes to explain. To be able to describe how something works. To be able to make a product is strong and stable. Model ideas with kits/ reclaimed materials. Use a range of materials to create models with wheels and axels e.g. glue, tape, dowel and cotton reels. Attach wheels to a chassis using an axle To evaluate my product against my intentions and success criterion. I can evaluate how my product could be made stronger/stiffer/more stable. 	<p>Workshop</p> <ul style="list-style-type: none"> All: Make a strong structure (chair) using junk modelling to hold a teddy bear.
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Cycle A: Summer – Paper Weaving

DT	<p>Paper weaving – fabric weaving - (linked to West African Kente Cloth)</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and others based on design criteria. To generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining) To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria To select from a wide range of materials and components such as textiles 	<ul style="list-style-type: none"> To use my own knowledge and ideas to make something – each colour fabric means something different in West African culture. Pupils create their own meaning for the colours they use in the card design. To explain to someone else how I want to make my product and why – why have you chosen those colours/meanings? Test out different materials and consider different factors to their success To use drawings to describe my intentions and add notes to explain. Discuss school values as a class (decide which value represents which colour) To use my knowledge of paper weaving and transfer this to fabric weaving. Will the process be different? Evaluate different textiles Show problem solving skills and understanding of need to continually evaluate. 	<ul style="list-style-type: none"> Y2 - Create a card that incorporates paper weaving Y1 - Create a class fabric weaving display which symbolises the school values – each colour has a different meaning (children create their own pattern to add to the display).
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Cycle B: Autumn – Fruit Kebabs

DT	<p>Fruit Kebabs</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and other users based on design criteria To generate, develop, model and communicate their ideas through talking, drawing and, where appropriate, information and communication technology To select from and use a wide range of materials, components, tools and equipment including knives, spoons, mixing bowls, grater, textiles (oven gloves and tea towel, cleaning products) and ingredients to perform practical tasks. To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria 	<ul style="list-style-type: none"> To name tools and know how to use them safely. To use good food handling and food hygiene Y2 - To understand the food wheel and why foods should be eaten in greater/smaller quantities. To identify the ingredients used in kebabs, where they come from and what they tell us about the climate. Y1- To understand the food wheel and the importance of a balanced diet. To discuss with others how fruit and vegetables keep people healthy. To understand that everyone should eat at least five portions of fruit and vegetables every day To understand where food comes from Cut, chop and mix with increasing skill. Show safety and awareness when cooking. To use a balance to weigh things. To follow verbal instructions To be able to cut food safely. To evaluate the nutritional value of the dish. 	<ul style="list-style-type: none"> All: Pupils will prepare a <u>kebab</u>. Pupils will be able to evaluate the dish and discuss the nutritional value of the dish. Pupils will create a recipe and method and be able to recreate the dish at home.
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Cycle B: Spring – Pop Up Cards

DT	<p>Pop up cards</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and others based on design criteria. To generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria To select from a wide range of materials To build structures, exploring how they can be made stronger, stiffer and more stable 	<ul style="list-style-type: none"> To describe how something works. Understand that different materials are chosen for different reasons. Test out different materials and consider different factors to their success - investigate strengthening sheet materials Discuss how I want to make a product and why. Measure materials to use in a model - use a template To cut, shape and join using a range of tools. Techniques - Fold, tear, cut, curl and roll paper. Cut along lines straight and curved. Use paper fasteners, split pins, glue and tape to join. Joining temporary, fixed and moving materials Select materials from a limited range that will meet the design criteria and explain why I have chosen specific materials Show problem solving skills and understanding of need to continually evaluate. Y2- explore how card can be made stiffer/more rigid. Evaluate my work against a success criterion. 	<p>Create a pop-up card and evaluate it</p>
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Cycle B: Summer – Sock animals

DT	<p>Sock animals</p> <p>Design</p> <p>Make</p> <p>Evaluate</p>	<ul style="list-style-type: none"> To design purposeful, functional, appealing products for themselves and others based on design criteria. To generate, develop, model and communicate their ideas through talking drawing, templates and mock-ups To explore and evaluate a range of existing products To select from a wide range of materials 	<ul style="list-style-type: none"> Use my own knowledge and ideas to make something Understand that different materials are chosen for different reasons. Test out different materials and consider different factors to their success Explain why I have chosen specific materials Describe what I will do next – first, next, last Measure materials to use in a puppet To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining) Y1- use a basic running stitch Y2- use a range of stitches to securely attach accessories to sock puppet. Show problem solving skills and understanding of need to continually evaluate – discuss work as it progresses and improve work as it goes along. Evaluate my work against a success criterion. 	<p>Design, make and evaluate a sock animal</p>
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