

St Bartholomew's C of E Primary School

Design and Technology Curriculum Overview



**St Bartholomew's C of E
Primary School**

Throughout all of the year groups cooking and nutrition projects, children will be taught aspects of a healthy diet and how to live a healthy lifestyle.

EYFS		
Throughout reception, the children will focus on the following goals that will help them with DT in Year 1 and beyond. <u>Physical development</u> • Progress towards a more fluent style of moving, with developing control and grace. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. <u>Expressive art and design</u> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills. <u>Fine motor skills</u> • Use a range of small tools, including scissors, paintbrushes and cutlery. <u>Creating with materials</u> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.		
Year 1		
Throughout all three of the projects they need to: • Think of some of their own ideas and explain what they want to do. • Explain what they are making and what tools they are using. • Talk about their own work and what they have made.		
Autumn	Spring	Summer
Theme: Puppets Textiles Inventor study – Jim Henson (Creator of the Muppets) How are puppets made? What we want them to know/experience:	Theme: Fruit Kebabs Cooking and nutrition Inventor study – Jamie Oliver How can we be safe in the kitchen? What we want them to know/experience: 1. How to cut safely.	Theme: Moving pictures Mechanisms Inventor study – Axel Scheffler Why do books and pictures use moving parts? What we want them to know/experience 1. To know how to make a product that moves. 2. To be able to cut materials with scissors.

1. To understand that models (puppets) are made out of different materials. 2. To know that sewing is stronger than gluing. 3. To be able to measure and cut textiles. 4. To join textiles together. 5. To say why they chose a textile.	2. To be able to compare taste and texture. 3. How to properly wash their hand for food preparation. 4. Knife skills – bridge grip to cut soft foods.	3. To know why some mechanisms have moving parts. 4. To add some kind of design to their product.
Year 2		
Throughout all three of the projects they need to: • Choose the best materials and give reasons why they are best. • Describe their design using pictures, models and words. • Join things in different ways. • Say what went well with their work and how they could improve it next time.		
Autumn	Spring	Summer
Theme: Castles Structures Inventor study – Joseph Paxton (designed the Crystal Palace) Skills: • To talk about how they will construct their product and make a sensible choice on which materials to use. • To make a simple plan before making their structure. • To consider how to improve their construction.	Theme: Fire engine Use of materials Inventor study – John Ericsson - Fire engine to visit school so children can investigate an actual fire engine. Skills: • To make a model using different materials. • To keep their work tidy. • To make their model stronger if it needs to be. • To measure the materials they use. • To join materials in different ways. • To try to incorporate some type of movement into their models.	Theme: Cooking Cooking and nutrition Inventor Study – Clarence Birdseye Skills: • To describe the properties of ingredients they are using. • To explain what it means to be hygienic. • To be hygienic in the kitchen.
		Theme: Seaside Snacks Skills: • To describe the properties of ingredients they are using. • To explain what it means to be hygienic. • To be hygienic in the kitchen. • To safely use spreading knives.

		To safely use spreading knives.	
Year 3			
Throughout all three of the projects they need to: - Put together a step by step plan which shows the order and what equipment they will be using. - Describe their design with an accurately labelled sketch. - Think what they could change to make their designs better.			
Autumn	Spring	Summer	
Theme: Photo Frames Stiff and flexible sheet materials. Inventor study – Joseph Nicephore Niepce – created the world’s first permanent photograph. Skills: - To use the most appropriate materials. - To cut and measure accurately. - To join different materials together. - To attempt to make their products strong.	Theme: Sandwich Snacks Cooking and nutrition Inventor Study – John Montagu 4 th Earl of Sandwich – invented the sandwich Skills: - To choose the right ingredients for a product (Sandwich/Scones) - Use equipment safely. - Describe how they used their ingredients to make their product. - Knife Skills – To start to independently cut harder foods using the claw and bridge grips.	Theme: Textiles Inventor study – (Done through history when they learn about rune bags) Skills: - Design product that takes consideration of size, durability and practicality. - To cut with accuracy. - To join textiles in different ways. - To choose textiles for their appearance and qualities. - To consider how they can make their product stronger. - To use a running stitch	
Year 4			
Throughout all three of the projects they need to:			

- To create a plan and also be able to explain their plan to others.
- To suggest improvements and say what is good and bad about other designs.
- To be conscience that their products will need to be liked by others.
- To show a good level of expertise when using equipment and tools they have used before.
- To be able to explain to evaluate their products think about both its appearance and how it worked.

Autumn	Spring	Summer
Theme: Shadow Puppet Box Electrical and mechanical components Inventor study -Thomas Edison Skills: 1. To create a simple circuit. 2. To use a number of different components. 3. To add things to a basic circuit. 4. To alter products after testing if it doesn't work. 5. To try out new ideas to improve circuit.	Theme: Brazilian feijoada Cooking and nutrition Inventor study – Alex Atala Skills 1. To know how to be hygienic and safe. 2. To present food in an interesting way.	Theme: Canopic Jars Mouldable materials Inventor study – (Done through history when they learn about the Egyptians) Skills: • To select the most appropriate material. • To shape and mould using a range of techniques. • To use a finishing technique.

Year 5

Throughout all three of the projects they need to:

- To create a detailed step by step plan, using alternative ideas and be able to say what is good and bad about both.
- To be able to explain why their finished product will be of good quality.
- To show a good level of expertise when using equipment and tools they have used before.
- To keep checking their product is the best it can be.

- To evaluate their product against the original design criteria.

Autumn	Spring	Summer
Theme: Moving Toys Inventor study – Rob Ives – Cam Toys Skills: - Understand that a cam can be used with a lever or a slider to change rotary motion into oscillating or reciprocating motion - To refine their product after testing it.	Theme: Bridges Inventor study – Joseph Strauss – Invented the golden gate bridge Skills: - Decide on different ways of joining materials and which is the strongest. - To measure and cut with accuracy to 1mm. - To ensure their work is precise and accurate. - To test and adapt product independently ensuring it is fit for purpose. - To try to hide joints to improve the look of their products.	Theme: Greek Food Inventor study – Lefteris Lazarou Skills: - To be able to describe what they need to be both hygienic and safe. - To present their final product well. - Knife skills – To dice harder foods into large evenly sized pieces.
Year 6		
Throughout all three of the projects they need to: - To use a range of information to inform their designs. - To work within constraints. - To follow their plans and refine if necessary. - To think of a way to test and evaluate their product. - To think of how different resources could have improved their project.		
Autumn	Spring	Summer
Theme: Funky Furnishings Inventor study – Lucy Sparrow Skills:	Theme: Great British Dishes Inventor study – Delia Smith Skills:	Theme: Mobile phone holder Product research – Looking at mobile phone holders.

1. To make their product attractive and strong. 2. To think of what the user would want when choosing their textile. 3. To use a range of stitches independently. (Blanket, cross, running, overstitch) 4. To think about how their product could be sold. 5. To consider what would improve their product even more.	1. To explain how their product should be stored. 2. Knife Skills – To use both grips independently with sharper knives. To finely dice food into evenly sized pieces.	Inventor study – Jony Ive – designed apple products inc the iphone. Skills: 1. To select the appropriate materials to make product. 2. To ensure their work is precise and accurate. 3. To think of ways to improve the look of their product. 4. To try to make a product that meets all of the design criteria.
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