

Design & Technology

“Design is not just what it looks like or feels like, design is how it works.”

Steve Jobs.

Year 2: Autumn Topic: Mechanisms		Year 2: Spring Topic: Textiles		Year 2: Summer Topic: Food Technology	
Prior Learning		Prior Learning		Prior Learning	
As part of the work in Mechanisms in year 1, children will have explored and used levers and sliders. They should be familiar with vocabulary such as design, mechanism, target audience, design criteria and evaluation.		In year 1 children have covered mechanisms, food technology and structures. Therefore, this will be their first time exploring and working with textiles as part of their program of study.		As part of the work in Food Technology in year 1, children will have explored and tasted some fruit and vegetables and considered how to create basic flavour combinations. They should be familiar with terminology such as ingredients, healthy and recipe.	
Curriculum objectives derived from the National Curriculum.		Curriculum objectives derived from the National Curriculum.		Curriculum objectives derived from the National Curriculum.	
<p>Design I can design purposeful, functional, appealing products based on design criteria.</p> <p>Make I can select from and use a range of tools and equipment to perform practical tasks.</p> <p>Evaluate I can explore and evaluate a range of existing products relating to a key engineer. I can evaluate my ideas and products against design criteria.</p> <p>Technical Knowledge I can explain how the wheels and axel mechanisms work.</p>		<p>Design I can design purposeful, functional, appealing products based on design criteria through talking, drawing or creating templates or mock ups of my design.</p> <p>Make I can select from and use a range of materials and components to create a product using the running stitch.</p> <p>Evaluate I can explore and evaluate a range of existing products relating to a key engineer. I can evaluate my ideas and products against design criteria.</p> <p>Technical Knowledge I can explain how to complete a running stitch.</p>		<p>Design I can design purposeful, functional, appealing products based on design criteria.</p> <p>Make I can select from and use a wide range of ingredients. I can explain the characteristics, flavours and health benefits of different foods.</p> <p>Evaluate I can explore and evaluate a range of existing products relating to a key engineer. I can evaluate my ideas and products against design criteria.</p> <p>Technical Knowledge I can explain where my ingredients come from.</p>	
Suggested Products	Suggested Key Engineers	Suggested Products	Suggested Key Engineers	Suggested Products	Suggested Key Engineers
Fire engine Fairground wheel Car	Richard Newsham George Washington Gale Ferris, Jr. Carl Benz	Pouches Puppet Easter decoration	Samuel Parkinson Ethel Stein	Wraps Pizza	Earl of Sandwich Raffaele Esposito
Key Assessment Questions		Key Assessment Questions		Key Assessment Questions	
<ol style="list-style-type: none"> 1. What is a mechanism? 2. What mechanisms are used in your product and how does it work? 3. Can you explain how your product meets the design criteria? 4. What were the most important parts of the design criteria? 		<ol style="list-style-type: none"> 1. What are textiles? 2. What type of stitch did you use and can you explain how to achieve that stitch? 3. Can you explain how your product meets the design criteria? 4. What were the most important parts of the design criteria? 		<ol style="list-style-type: none"> 1. Can you name any of the 5 food types? 2. What does it mean to have a balanced/varied diet? 3. Can you explain how your product meets the design criteria? 4. What were the most important parts of the design criteria? 	

Year 3: Autumn Topic: Textiles		Year 3: Spring Topic: Structures		Year 3: Summer Topic: Food Technology	
Prior Learning		Prior Learning		Prior Learning	
In Year 2, children will have learnt how to create templates on fabrics and the use of a running stitch. Children will have explored a variety of fabrics and the textures of them.		In Year 1, children will have explored structures and developed skills in creating individual components to build a structure. Children will have gained knowledge on how to evaluate structures and how they can make them stronger.		In Year 2, children will have explored the different food groups and what it means to have a balanced and varied diet. Children will have tasted a range of ingredients and be able to explain their characteristics and their health benefits. Children will also have gained understanding of where various foods come from.	
Curriculum objectives derived from the National Curriculum.		Curriculum objectives derived from the National Curriculum.		Curriculum objectives derived from the National Curriculum.	
Design I can analyse current products similar to that which I will create. I can create a design using set criteria for a product. Make I can select and use a wide range of textiles to create a functional product. I can use two different types of stitching. Evaluate I can evaluate my own designs and suggest improvements. Technical Knowledge I can research how key engineers have impacted and shaped the world.		Design I can analyse current products similar to that which I will create. I can use computer-aided design to create a design using set criteria for a product. Make I can select and use appropriate tools and equipment to perform practical tasks. I can use a range of construction materials to form a standing structure. Evaluate I can evaluate my own designs and suggest improvements. Technical Knowledge I can apply skills to strengthen, stiffen and reinforce more complex structures.		Design I can analyse current products similar to that which I will create. I can use computer-aided design to create packaging for my food product. Make I can prepare and cook a product from my own design. Evaluate I can evaluate my own designs and suggest improvements. Technical Knowledge I can show an understanding of where food is from and how it is grown. I can understand what the term 'seasonal' means and what foods are specific to various seasons.	
Suggested Products	Suggested Key Engineers	Suggested Products	Suggested Key Engineers	Suggested Products	Suggested Key Engineers
Cushion Rug Canvas Blanket	Cath Kidston Cyrus the Great Thomas Blaquette	Castle or Fort Bug House Religious Place of Worship	Henry Yeverley Neil Challenger Frederick Gibberd	Fruit Crumble Vegetable Tart	Jamie Oliver The Tatin Sisters
Key Assessment Questions		Key Assessment Questions		Key Assessment Questions	
<ol style="list-style-type: none"> 1. Explain what materials you have used in your product and why. 2. Name two types of stitches and how you create them. 3. Why is important to choose the correct types of materials in textiles? 4. How has your product met the set criteria? 		<ol style="list-style-type: none"> 1. Explain what materials you have used in your product and why. 2. Explain the methods you used to strengthen your structure and why. 3. What is a net and why is it used in structural design? 4. What do the different lines identify on a net? 		<ol style="list-style-type: none"> 1. Explain what health benefits your product has and why. 2. Name two ingredients in your product and explain where they are from. 3. What does the term seasonal mean and why is it important to food products? 4. Why is it important to have a balanced diet? 	