

# Common Road Infant and Nursery School

## Our Design Technology Curriculum

Our Design Technology (DT) curriculum is guided by the **National Curriculum (2014)** for KS1 DT. Pupils should be taught about:

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

### To 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

### To evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

### To apply 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

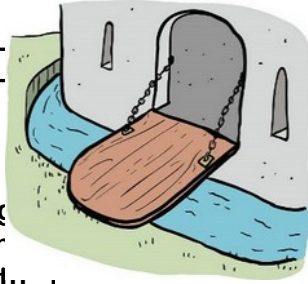
### Cooking and nutrition

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from

**Intent** - Our ambition is that through high quality design technology teaching our children will grow to become creative thinkers and problem solvers. They will experience a range of practical hands on learning opportunities where they are taught the knowledge and skills to become proficient designers. Children will make products to solve some simple problems, applying their design and technology knowledge allowing them to make their designs a reality. They will grow to have the confidence to evaluate their work developing and building upon its successes and flaws, building their resilience. Our aim is to inspire our children to be future innovators.



**EYFS** - In the EYFS children have had independent access to modelling and making through continuous provision. They have been able to think of their own ideas and use the available tools to make them. They have talked about what they have made and drawn to adults in the setting. Children have had the opportunity to return to their projects and make changes.



**Year 1**  
Autumn term  
(Living locally)  
Applying their knowledge of materials by designing and making a castle with a moving drawbridge.

**Year 1**  
Summer term  
(Our big, wide world)  
Applying their knowledge of plants in Science and Geography focusing on using different fruit from all over the world when making their food product, a fruit kebab.

**Year 2**  
Autumn term  
(Living locally)  
Applying their knowledge of different materials and their properties they apply this knowledge when designing and making their Davy Lamp in Design and Technology.



**Year 2**  
Summer term  
(Our big, wide world)  
Previous teaching about plants and link with the Design and Technology brief where children learn about health and nutrition focusing on using different food groups to cook a pizza.

**Year 1**  
Spring term  
(Our Island)  
Children build on their previous science learning on materials by designing then using their skills to make a boat using a variety of materials and textiles.



**Year 2**  
Spring term  
(Our Island)  
Using the theme of the Titanic children will learn how to make levers and sliders and uses these mechanisms to make their own moving picture.



## Progression Overview

	EYFS	Year 1	Year 2
Design	<i>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</i> <b>ELG 2021</b>	<ul style="list-style-type: none"> <li>• Begin to draw on their own experience to help generate ideas and research given specific criteria.</li> <li>• Begin to understand the development of existing products: What they are for, how they work, materials used.</li> <li>• Start to suggest ideas and explain what they are going to do.</li> <li>• Understand how to identify a target group for what they intend to design and make based on a design criteria.</li> <li>• Begin to develop their ideas through talk and drawings. Make templates and mock ups of their ideas in card and paper or using ICT.</li> </ul>	<p><i>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</i> <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</i> <b>National curriculum</b></p> <ul style="list-style-type: none"> <li>• Start to generate ideas by drawing on their own and other people's experiences.</li> <li>• Begin to develop their design ideas through discussion, observation, drawing and modelling.</li> <li>• Identify a purpose for what they intend to design and make.</li> <li>• Understand how to identify a target group for what they intend to design and make based on a design criteria.</li> <li>• Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas in card and paper or using ICT.</li> </ul>
Make	<i>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</i> <b>ELG 2021</b>	<ul style="list-style-type: none"> <li>• Begin to use a range of tools with confidence and accuracy.</li> <li>• Use their knowledge of exploration to choose the best tool for the job.</li> <li>• Use their knowledge of exploration to choose the best components for their product based on their knowledge of materials.</li> <li>• Experiment with different joining methods.</li> </ul>	<p><i>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i> <i>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</i> <b>National curriculum</b></p> <ul style="list-style-type: none"> <li>• Use a range of tools with confidence and accuracy.</li> <li>• Choose the best tool for the desired effect they want to achieve.</li> <li>• Choose the best components for their product based on their knowledge of materials.</li> <li>• Use the most effective joining method for their product.</li> </ul>
Evaluate	<i>Share their creations, explaining the process they have used.</i>	<ul style="list-style-type: none"> <li>• Start to evaluate their product by discussing how well it works in relation</li> </ul>	<i>Explore and evaluate a range of existing products.</i>

	<p><b>ELG 2021</b>  <i>Explore, use and refine a variety or 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.</i>  <i>Create collaboratively sharing ideas, resources and skills.</i>  <b>DM 2020</b></p>	<p>to the purpose (design criteria).</p> <ul style="list-style-type: none"> <li>When looking at existing products explain what they like and dislike about products and why.</li> <li>Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.</li> </ul>	<p><i>Evaluate their ideas and products against design criteria.</i>  <b>National curriculum</b></p> <ul style="list-style-type: none"> <li>Evaluate their work against their design criteria.</li> <li>Look at a range of existing products explain what they like and dislike about products and why.</li> <li>Start to evaluate their products as they are developed, identifying strengths and possible changes they might make.</li> <li>With confidence talk about their ideas, saying what they like and dislike about them.</li> </ul>
Technical knowledge	<ul style="list-style-type: none"> <li>Join materials together.</li> <li>Use joining materials.</li> <li>Use and explore tools and their effects.</li> </ul>	<p>Know how to:</p> <ul style="list-style-type: none"> <li>Build structures</li> <li>Adapt structures to make them stronger</li> <li>Know how to make and use a lever/slide wheels and axels.</li> </ul>	<p>Know how to:</p> <ul style="list-style-type: none"> <li>Build structures</li> <li>Adapt structures to make them stronger</li> <li>Know how to make and use a lever/slide wheels and axels.</li> </ul>
Food and Nutrition	<p><i>Know and talk about the different factors that support their overall health and wellbeing e.g. healthy eating.</i>  <b>DM 2020</b></p>	<ul style="list-style-type: none"> <li>Begin to understand that all food comes from plants or animals.</li> <li>Explore the understanding that food has to be farmed, grown or caught.</li> <li>Start to understand how to name and sort foods into the five groups in 'The Eat well plate</li> <li>Begin to understand that everyone should eat at least five portions of fruit and vegetables</li> <li>Know how to prepare simple dishes safely and hygienically, without using a heat source.</li> <li>Learn the cutting techniques the bridge hold and claw grip.</li> </ul>	<p><i>Use the basic principles of a healthy and varied diet to prepare dishes.</i>  <i>Understand where food comes from.</i>  <b>National curriculum</b></p> <ul style="list-style-type: none"> <li>Understand that all food comes from plants or animals.</li> <li>Know that food has to be farmed, grown or caught.</li> <li>Understand how to name and sort foods into the five groups in 'The Eat well plate'</li> <li>Know that everyone should eat at least five portions of fruit and vegetables every day.</li> <li>Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.</li> <li>Demonstrate how to use techniques such as cutting (using the bridge and claw grips) peeling and grating.</li> </ul>

Year group	1	1	1
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<b>Theme</b>	<b>Living locally</b>	<b>Our Island and beyond</b>	<b>Our big, wide world</b>
<b>Overview</b>	Through the science curriculum children will have learned about different materials and their properties. They will then apply this knowledge when designing and making a castle with a moving drawbridge in Design and Technology.	Children build on their previous science learning on materials by designing then using their skills to make a boat using a variety of materials and textiles.	Previous teaching about plants in Science and links with Geography are then made with the Design and Technology cooking and nutrition strand focusing on using different fruit from all over the world when making a food product.
<b>Previous knowledge</b>	In the EYFS children will have had access to modelling and making through their provision. They will have developed their skills when using tools such as scissors and experimenting with different joining methods including tapes and glues. They will have had the opportunity to talk to their friends about their work and explain what they have made.		
<b>Specific vocabulary</b>	design fix hold produce tools equipment cutting shaping joining structure	strong float sails engine	ingredients energy health bridge hold claw grip hygiene knife skewer

<b>Year group</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Theme</b>	<b>Living locally</b>	<b>Our Island and beyond</b>	<b>Our big, wide world</b>
<b>Overview</b>	Through the science curriculum children will have learned about different materials and their properties they apply this knowledge when designing and making their Davy Lamp in Design and Technology.	Using the theme of the Titanic children will learn how to make levers and sliders and uses these mechanisms to make their own moving picture.	Previous teaching about plants and link with the Design and Technology brief. Children learn about health and nutrition focusing on using different food groups to cook a pizza.

<p><b>Previous knowledge</b></p>	<p><b>Building upon the EYFS in Year 1 children have applied their scientific knowledge of materials designing and making their own castle and boat. They were able to discuss their ideas and choose the right materials to fit the design brief. They used a range of skills to make their models and learned how to make a simple mechanism in their drawbridge and tested how it functioned. They build upon science knowledge to look at healthy food products and how food can be prepared safely to make a healthy snack.</b></p>		
<p><b>Specific vocabulary</b></p>	<p><b>structure handle base Davy lamp</b></p>	<p><b>lever slider moving mechanism design make evaluate</b></p>	<p><b>grate bridge hold claw grip knife skewer protein dairy</b></p>