

# Shorne Church of England Primary School



## Design and Technology content by year group

### Year 1

In Year 1 the children will begin to select different tools and materials for tasks and will start to explain why they have chosen them. Children will start to learn in greater depth how to be safe using tools. The children will start to explore joining different materials using tape and glue and will start to build simple structures based on their designs. The children will be encouraged to evaluate their own and others work and discuss next steps to improve their work. The children will have the opportunity to explore and use wheels, axles, levers and sliders to make simple mechanisms.

In Food Technology, the children will start to learn about a healthy and balanced diet and explore where different foods come from.

### Year 2

In Year 2 the children will continue to develop upon the skills learnt in year 1 and will start to use tools to cut and join using glue, staples, tape and sewing. The children will model and communicate their ideas through talking, drawing, mock-ups and will start to use ICT. They will continue to use wheels, axles, levers and sliders and will evaluate their ideas and products against a design criteria. They will explore how to make structures they build stronger, stiffer and more stable. The children will plan what to do next, based on their experiences of working with materials and components and will describe the similarities and differences between their own and others work.

In Food Technology, the children will recognise the importance of a variety of food in our diet and will have the opportunity to prepare, chop and peel a range of ingredients.

### Year 3

In Year 3, the children will plan tools and materials for a task and explain why they are best. The children will be encouraged to use a range of methods to find solutions to design problems. The children will now start to explore gears, pulleys, cams and linkages as well as continuing to look at wheels, axles and sliders. The children will make detailed and realistic plans that are labelled and meet a range of needs to fit a selected purpose. The plans will also include the different processes required and equipment and materials needed. The children will evaluate existing products and explore their purpose. The children will start to look at different designers and explore how their products have helped people.

In Food Technology, the children will continue to explore a balanced diet and will closely follow health and safety rules when cooking and will start to discuss their importance. They will start to look at different food from around the world.

## **Year 4**

In Year 4 the children analyse the potential of a range of tools and use with accuracy. The children will choose from a range of materials based on their understanding of their characteristics. The children will continue to follow the health and safety rules when working with materials and tools. The children will start to use a glue gun 1:1 with an adult to join different materials. The children will continue to develop their knowledge and understanding on improving structures by exploring how to strengthen and reinforce their models. The children will now start to make step by step plans when building their models and structures and will review and reflect on their plans as the product develops. To inform their designs the children will research information keeping in mind the products purpose. The children will continue to explore different designers throughout history, taking into account their interests.

In Food Technology, the children will measure and weigh ingredients to prepare and cook a range of savoury dishes. The children will be able to make and explain what healthy choices are and what the benefits of a healthy diet are.

## **Year 5**

In Year 5 the children will name and select tools, demonstrate safe and precise use. The children will use their range of joining techniques, including a glue gun under close supervision, to build secure and stable structures. The children will create a range of 3D products using these techniques and will use a variety of information to clarify ideas and design plans. The children will have the opportunity to test and evaluate existing products against a design specification and will do the same for products they make. The children will incorporate ICT into their planning. The children will research different techniques to help support their product designs.

In Food Technology, the children will continue to weigh, measure and combine different ingredients using appropriate methods. The children will evaluate their dishes and discuss how they can be incorporated into a healthy and balanced diet. The children will also look at the seasonality of different food.

## **Year 6**

In Year 6 the children will choose the best materials for selected tasks, showing a clear understanding of the characteristics of the materials and how to use the tools accurately and safely. The children will use the most sophisticated method to join the different materials, including glue guns and nails. The children will develop, try out and refine sequences of instructions and will develop detailed criteria for designs, having a clear target audience in mind when doing so. The children will critique their own work and think about how they would improve their work next time. They will also compare their products to others, noting the similarities and differences and sharing their ideas. The children will continue to use ICT to help plan and design their ideas and to support their research.

In Food Technology, the children will use measuring scales to accurately weigh ingredients and will discuss how to have and afford a healthy and balanced diet. The children will learn how different ingredients are grown, reared, caught and processed.