St John the Baptist Primary School

RESPECT, RESILIENCE, READINESS

Design & Technology Curriculum Intent Statement

Intent

At St John's we offer a stimulating and challenging design and technology curriculum. This equips our children with the readiness to learn new skills and knowledge needed to succeed in a rapidly advancing world of technology. Working as individuals or as part of a team, we encourage our children to be critical thinkers, problem solvers and effective communicators. Our design and technology curriculum also gives our children the opportunity to transfer skills taught in other subjects, such as; science, maths, computing and art.

Implementation

EYFS

Children experience using a variety of tools and techniques to shape, assemble and join materials they are using. All children will be encouraged to construct with a purpose in mind, through direct teaching and continuous provision.

KS1

Design

Children will design a product, following design criteria through drawing, discussion, templates and where appropriate, technology.

Make

Children will be given a range of tools for their projects to choose from. They will use a range of materials and components; textiles, construction equipment and ingredients.

Evaluate

Children will evaluate existing products and evaluate their own products against design criteria.

Technical Knowledge

Children will build structures, exploring how they can be made stronger, stiffer and more stable. They will use mechanisms, such as levers, sliders, wheels and axles, in their products.

Cooking and Nutrition

Children will learn about cooking and nutrition and use the basic principles of a healthy and varied diet to prepare dishes. They will learn where their food comes from.

Lower KS2

Design

Children will use research and design criteria to inform the design of their product. They will develop their ideas through discussion, labelled drawings, annotated sketches, pattern pieces and technology.

Make

Children will select from and use a wide variety of tools and equipment. They will use from and select a wide range of materials and components; textiles, construction equipment and ingredients.

Evaluate

Children will investigate and analyse a range of existing products and will evaluate their own products and consider the views of others to improve their work.

Technical Knowledge

Children will apply their understanding of how to strengthen, stiffen and reinforce more complex structures They will use mechanical systems in their products, such as gears, pulleys, cams, levers and

linkages In addition to this, they will use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors.

Cooking and Nutrition

Children begin to apply the principles of a healthy and varied diet to cook a variety of dishes. They will learn about where and how a variety of ingredients are grown, reared, caught and processed.

Upper KS2

Design

Children will use research and develop design criteria to inform the design of functional, appealing products with purpose. They will generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Children can select from and use a wider range of tools. They will select from and use a wider range of materials and components; textiles, construction equipment and ingredients.

Evaluate

Children will investigate and analyse a range of existing products. They will evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Children will be taught how key events and individuals in design and technology have helped shape the world.

Technical knowledge

Children will apply their understanding of how to strengthen, stiffen and reinforce more complex structures They will understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages Children will understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors. They will apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

Children will understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed

Impact

On leaving St John's we aim to have taught our children to respect how inventors and engineers have a positive impact on our daily lives through evaluation of past and present design and technology. In addition to this, children will be respectful when designing and making products for others; taking into consideration other's needs, wants and values. Through a diverse range of experiences, children will know the importance of resilience when inventing, by taking risks, testing their ideas and products and evaluating their work and that of others.