

Design and Technology.

"Design and Technology at St Budeaux Academy aligns with the National Curriculum, ensuring that students receive a comprehensive education in design and technology.

The curriculum is a dynamic blend of creativity, problem-solving, and practical skills. Our diverse and balanced curriculum empowers pupils to imagine, design, and construct. Through inclusive and purposeful learning, we aim to raise aspirations and instil pride in achievement. We explore real-world challenges, from simple mechanisms to sustainable innovations. Children learn to use tools, materials, and digital technologies. We celebrate their ingenuity, resilience, and teamwork. Our aim is to nurture confident designers, critical thinkers, and responsible creators who shape a better future."



Intent



Deliver a curriculum which is **exciting** and **progressive**.

Develop children's understanding of the **technical and practical skills** and what its like to be an engineer/designer.



Expose children to a range of inventors, designers, and inventions so that they can use **critical thinking** skills to reflect on, **evaluate** and revise products according to their purpose and user.



To enable children to make **purposeful links** across the curriculum in subjects such as maths, science and computing to strengthen and transfer knowledge.



Develop the ability to **ask meaningful questions**, think critically and design products and solutions for real life contexts including cost and effectiveness.



We promote **equality and diversity** and challenge **stereotypes** through different inventions cultures and lessons.

Implementation

Sequence

DT is taught in blocks across the year, so that children achieve depth in their learning. For each topic there are key performance indicators to ensure children are learning the key knowledge from the unit studied. Children are also exposed to a range of technical and practical skills which are tracked and progressive. By the end of Year 6 children will be able to design products which allow them to develop skills and techniques at greater depth, thinking about their design brief, cost, effectiveness and other environmental factors. This will prepare them to be innovative problem solvers of the future. Children are exposed to electrical and mechanical systems, structures, textiles, food and nutrition.



Technical and design Skills

At St Budeaux Primary, children are exposed to and taught technical and design skills, so children understand what it is like to be a designer/inventor. Children will learn how to make products using a range of tools and equipment to perform practical tasks and select from a wide range of materials and components. They can evaluate a range of existing products, evaluate ideas, and understand how key events and individuals in design and technology have helped shape the world. They will develop their technical knowledge by understanding how to strengthen, stiffen and reinforce, use mechanical and electrical systems. They can also cook and apply principles of nutrition and health to their products.



Early Years

In the Early Years, DT lays a solid foundation for Ks1. They will have the opportunities through planned activities and continuous provision to work with mechanisms, structures, food and textiles. Using a variety of tools is encouraged as this helps strengthen their fine and gross motor skills. The environment provides children with opportunities to problem solve, take risks and build resilience. They have opportunities to build with construction and a range of other materials. Through purposeful conversation and questioning children begin to learn subject specific language.

Developing curiosity and social capital.

The teacher encourages children to ask questions, supporting an open dialogue which embeds understanding and curiosity. We develop social capital through different mediums and exposing children to a range of technology so that they can experience different cultures, inventions and structures from around the world using videos, photos.

Developing reading and vocabulary

Within each unit, subject specific vocabulary is explicitly taught, and children then apply this to their learning. This allows children to talk confidently about their designs and products they make as well as critique others. We also plan opportunities for children to learn about a range of inventors and designers from different cultures and backgrounds.



Retrieval practice and metacognition

In order for children to 'know more and do more' and retain the key performance indicators of each topic. Children have a range of retrieval activities and opportunities to revisit and recap previous learning. Children learn in different ways to support retention of information, this can be through practical activities, focused practical tasks, application of a previous skills and summative assessment opportunities.

Impact

Children leave each year with the knowledge and skills required to enable them to access and apply to subsequent learning. Children will be aware of different inventors and designers from a range of cultures and historical periods. Children will be able to make links to previous learning and understand the relevance of these connections.

