



Biscovey Primary Academy
Teaching and Learning Principles
Subject: Design and Technology

'Roots to grow, wings to fly'

School Vision:

At Biscovey Primary Academy we aim for every child to flourish in a nurturing environment, demonstrate respect and kindness, whilst building resilience and ambition for the future.

Our curriculum ensures that we deliver a range of topics across the age phases which develops sequential learning where pupils know more and can do more, ensuring that they are ready for their next stage in education.

Our nurturing ethos endeavours to support all children and their families. Through this approach we are able to work together to ensure that we meet the needs of all learners in our school.

We pride ourselves on delivering an ambitious curriculum, focusing beyond the academic curriculum, developing a child's individual character. Our core values; 'nurture', 'respect' and 'ambition' run through all areas of school life and learning which allows the whole child to develop into a confident and caring young individual. The Biscovey child shows respect, and through ambition, self-belief and courage approaches learning with an inquisitive mind.

'Roots to grow, wings to fly'

Subject Intent:

At Biscovey Primary Academy, our Design and Technology curriculum is designed to provide pupils with the knowledge, skills and cultural capital they need to succeed beyond primary school. Through studying a range of local, national and international designers, products and innovations, children develop an understanding of how design shapes the world around them and influences everyday life.

In Key Stage 1, pupils are encouraged to explore, create and investigate through hands-on experiences. They learn basic design, making and evaluation skills, begin to use subject-specific vocabulary, and develop curiosity about how products are designed to meet different needs.

In Key Stage 2, pupils build on these foundations by applying increasingly complex technical knowledge and practical skills. They are challenged to design, make and evaluate products that solve real and relevant problems, considering the needs, values and experiences of others. Through the study of food, structures, mechanisms, textiles and significant designers, pupils develop a deeper understanding of design processes and their impact on society, the environment and industry.

Our ambitious curriculum promotes creativity, innovation, resilience and critical thinking. Pupils are encouraged to take risks, learn from mistakes and work both independently and collaboratively to develop effective solutions. As their learning progresses, children become confident in discussing their ideas and designs using increasingly sophisticated technical vocabulary.

We explicitly teach and revisit subject-specific language throughout the curriculum to ensure all pupils can access learning and articulate their understanding. Vocabulary and concepts are carefully scaffolded, with additional support provided where needed, enabling all pupils, including those with SEND and other vulnerable groups, to achieve well.

We believe every child is entitled to a high-quality Design and Technology education that inspires ambition, develops problem-solving skills and prepares them for an ever-changing world. Through strong relationships, inclusive practice and consistent routines, we provide a safe and supportive environment in which all pupils can thrive.

Subject Implementation:

At Biscovey Primary Academy, Design and Technology is taught through the National Curriculum and supported by the Kapow scheme of learning. Through engaging, cross-curricular projects, pupils develop the knowledge, skills and understanding needed to design, make and evaluate products for real and relevant purposes.

In Key Stage 1, pupils explore simple design challenges, learning how to generate ideas, select materials and evaluate their creations. They begin to use subject-specific vocabulary and develop confidence in communicating their design thinking through discussion, drawing and making.

In Key Stage 2, pupils build on these foundations through increasingly complex projects linked to their learning across the curriculum. They work through the iterative design process, refining ideas, developing technical skills and evaluating products against design criteria. Pupils are encouraged to consider the needs of intended users and understand how design can solve problems and improve everyday life.

Across both key stages, children engage in a wide range of practical activities, including food technology, textiles, structures, mechanisms and electrical systems. Food technology develops pupils' understanding of where food comes from, the importance of healthy eating and basic food preparation skills.

Subject-specific vocabulary, significant designers and a diverse range of products are embedded throughout the curriculum to deepen understanding and support pupils in articulating their learning. Knowledge and skills are carefully sequenced to build on prior learning, ensuring clear progression and enabling all pupils to develop as creative, confident and resilient designers.

We believe that high-quality Design and Technology education plays a vital role in fostering creativity, innovation and problem-solving, preparing pupils to contribute positively to their communities and the wider world.

Subject Impact:

The impact of our Design and Technology curriculum is that pupils develop the knowledge, skills and confidence to become creative, resilient and reflective problem-solvers. Through a progressive curriculum enriched by visits, visitors and real-world experiences, children understand how design and innovation shape the world around them and address current and future challenges.

Pupils learn to apply their knowledge to purposeful design projects, considering functionality, sustainability and the needs of intended users. For example, when studying Cornwall's industrial heritage, Key Stage 2 pupils may design and construct a moving vehicle inspired by Richard Trevithick's engineering innovations, applying their understanding of mechanisms and evaluating their designs against clear success criteria. Such experiences enable pupils to appreciate the impact of design and technology within both their local community and the wider world.

Through regular evaluation and reflection, pupils develop the ability to critique their work, refine ideas and take ownership of their learning. Pupil and staff voice continually informs curriculum development, ensuring learning remains engaging, relevant and ambitious.

Through our ambitious curriculum, we aim for all pupils to leave Biscovey as articulate, innovative and aspirational learners who are well prepared for the next stage of their education and equipped with the skills to thrive in an ever-changing world.