Bromesberrow St Mary's Design Technology Curriculum

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.

- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.

- Critique, evaluate and test their ideas and products and the work of others.

- Understand and apply the principles of nutrition and learn how to cook.

Intent

At Bromesberrow St Mary's School, we value Design and Technology as an important part of the children's entitlement to a broad and balanced curriculum.

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts. Our Design and Technology curriculum ensures the children acquire a broad range of subject knowledge and draw on disciplines such as oracy, mathematics, science, engineering, computing and art.

We aim to develop the whole child by having a Design and Technology curriculum that meets the National Curriculum and that develops many skills in the children.

We encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering the user, purpose of products and the user's wants and values to develop a design criterion. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

Throughout the children's journey from EYFS to KS2, we will strive to deliver high quality teaching in Design and Technology to provide the children with the essential skills to facilitate daily life and help shape the world and their future.

Implementation

We use Kapow's Design Technology Curriculum and have adapted the structure to ensure that this works for our unique mixed class organisation. We have adopted Kapow's Progression of skills and Progression of Vocabulary to ensure that children develop the skills and vocabulary they need at the right time in their development.

The Kapow curriculum is a spiral curriculum, revisiting skills with increasing complexity. It has is built around the following 4 strands (golden threads) that weave throughout:

Design	Make	Evaluate	Technical Knowledge

The units are organised into 6 core areas:

EYFS (Reception), Key Stage 1 and Key Stage 2

Cooking and nutrition

Structures

Mechanisms/Mechanical systems

Textiles

Key Stage 2 only

Digital world

Electrical systems

Due to the unique nature of our mixed age classes, we have chosen units based on the interest of our children and where we feel they would benefit and 'grow' the most in terms of cultural capital. We also interweave design and technology opportunities into other areas of the curriculum where we feel this will enhance the subject being taught and offer re-visitation of the skills they have already been taught (e.g. when learning about The Great Fire of London in Class 2, the children created structures of the houses on Pudding Lane allowing for re-visitation of structure skills)

Design and technology lessons are taught once a term as a block so that children's learning is focused throughout each unit of work and the children can discuss previous learning and see their progression.

In cooking and nutrition lessons the children learn where their food comes from and how to prepare and cook progressively more skilled recipes year on year.

The school's Design and Technology curriculum is supported through the availability of a wide range of quality resources, which are used to support children's confidence in the process of designing and making.

Inclusion for all learners

To ensure all learners are included in and able to access our design technology curriculum we:

- Adapt learning e.g. using small group or 1:1 support or additional modelling
- Adapt resources e.g. using key words sheets, flow charts and visual instruction sheets which explain a process in a step-by-step manner.

All teachers have access to progression maps to differentiate learning for those children who have gaps in their learning or who have SEND needs.

Impact

One of the strengths and reasons we choseapow as a Curriculum is that it worked to build children's skills of discussion, evaluation and decision making; effectively engendering metacognition and promoting independence and ownership of learning. When children leave us, from following our curriculum, they will be ready for the next stage in their DT education.

We want them to:

- Understand the functional and aesthetic properties of a range of materials and resources.
- Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios.
- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.
- Have an appreciation for key individuals, inventions, and events in history and of today that impact our world.
- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self-evaluate and reflect on learning at different stages and identify areas to improve.

Our Rolling Long Term Plan

All units from Year 1-6 consist of 4 lessons.

	Class 1 Reception/Year 1	Class 2 Year 2/3	Class 3 Year 4/5/6
Autumn	Cycle A: Structure- Creating Windmills Cycle B: Mechanisms- Wheels and Axis Seasonal projects: Hibernation boxes, Sliding Santa Chimneys.	Cycle A: Cooking- Eating Sensibly Cycle B: Electrical Systems-Torches	Cycle A: Mechanical System-Making a sling shot car Cycle B: Structure- Bridges Cycle C: Electrical Systems- Electronic greeting cards
Spring	Cycle A: Textiles- Bookmarks Cycle B: Mechanisms- Moving Story book	Cycle A: Textiles- Fastenings Cycle B: Electrical systems- Static electricity	Cycle A: Cooking- Adapting a recipe Cycle B: Textiles- Stuffed Toys

	Seasonal Projects: Hanging egg decoration, Flower threading		Cycle C: Digital World- Navigating the world.
Summer	Cycle A: Cooking-Fruit and Vegetables Cycle B: Textiles- Puppets Seasonal projects: Designing and making a rainbow salad	Cycle A: Mechanisms- Sling shot car Cycle B: Structure- Constructing a Castle	Cycle A: Textiles- Waistcoats Cycle B: Structures- Pop up books Cycle C: Cooking- Come dine with me


Shining Together We Reach for the Stars!
Parents
Community
Children
Governors
Staff
Bromesberrow St Mary's
CofE (VA) Primary School
Kindness • Respect • Pride • Cooperation • Perseverance • Motivation