Design and Technology at St Bartholomew's CE (VC) Primary School

'Nurture, Grow, Flourish'

At St Bartholomew's CE (VC) Primary School, we aim to provide all children with a broad and balanced curriculum which is based on our curriculum intent statement and incorporates our school vision and values. 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.

Design and Technology is an inspiring, rigorous and practical subject. It can be found in many of the objects the children use each day and is a part of children's immediate experiences. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team.

At St Bartholomew's CE (VC) Primary School, the Design and Technology curriculum combines skills, knowledge, concepts and values to enable children to tackle real problems. It can improve analysis, problem solving, practical capability and evaluation skills. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are encouraged to become innovators and risk-takers. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Our 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.

The Design and Technology curriculum at St Bartholomew's C.E (VC) Primary School provides opportunities for the children to learn, apply and strengthen essential skills required in the designing, making and evaluating of an effective product for a given purpose. It is also the intent of the Design and Technology curriculum to ensure that the children are well-equipped with useful technical knowledge to support them in the designing and making of their product. For example: Learning how to strengthen a structure to make it more stable, learning how to use mechanisms or electrical systems in their designs and learning how to use computer programming to control a product.

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The school aims to develop the children's use and understanding of technical vocabulary associated with this subject. This is so that the children can articulate the skills that they have applied, the equipment that they have used and describe the material/s and features of the product that they have made.

During the Foundation Stage children will work towards the areas of learning set out in the Early Years Foundation Stage that underpin the curriculum planning for children from birth to five.

During the **Foundation Stage children** will be encouraged to:

- Fit things together and take them apart;
- Explore and select materials and equipment;
- Change the shape and arrangement of objects, in a variety of ways, for example stacking, connecting, stretching, enclosing;
- Experience and experiment with a range of technology with support;
- Use a variety of tools safely;
- Use skills such as cutting, joining, folding and building for a variety of purposes;
- Talk about what works/ does not work and suggest improvements;
- Recognise a problem and suggest ideas for solving it;
- Help to plan the sequence and details of tasks;
- Build and construct with a wide range of objects, selecting appropriate resources, and learn to adapt their work when necessary;
- Select the tools and techniques they need to shape, assemble and join the materials they are using;
- Find out and identify the uses of everyday technology to support their learning.

From Year 1 upwards, the children will engage in Design and Technology projects which will involve the children exploring, researching, designing, making, technical knowledge/skills and evaluating. In both Key Stage 1 and Key Stage 2, the children will take part in units of study around food, textiles, structures and mechanism. Due to our mixed-age structure, we have carefully mapped our curriculum to ensure that our rolling curriculum enables the children to develop in all areas of study.

We have also carefully mapped the key skills of designing, making and evaluating across the curriculum and the key stages. This will enable the children to build on prior learning and build on their skills as they move through the school.

EXPLORING

The children will explore products linked to their project. They will do this by:

- Taking the product apart and looking at the material/s used to make it;
- Looking at the different features of the product;
- Establishing how the product is constructed;
- Questioning how effective it is in its purpose;
- Discussing what could be done to improve this product;
- Producing a list of key vocabulary linked to this product;

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RESEARCHING

The children will carry out age-appropriate research regarding the product that they are going to make so to support them in the designing of their product.

DESIGNING

At an age-appropriate level, the children will draw/sketch their design and annotate this with information about their design such as, what features they have included in their design. During this lesson the children will also answer questions such as:

- What materials will I need?
- What tools will I need?
- What technical skills will I need to practice before making the product?

TECHNICAL KNOWLEDGE / SKILL

The children engage in a practical task where they will be taught and practice technical knowledge or a skill that they will be required to use when making their product (focused-practical task).

MAKING

The children will apply their learning and use their designs to make their product.

EVALUATING

The children will not only evaluate the effectiveness of their product but also the skills that they applied. They will use their design criteria as a basis for their evaluations. As the children move through school, the children will be asked to consider changes that they would make to future projects.

The children through school are taught cooking and nutrition in the curriculum and we provide a curriculum which enables children to make healthy eating choices. We believe teaching pupils to cook is an important part of promoting a whole school approach to health and wellbeing and attainment.

Impact

Each Design and Technology project ends with all children creating and evaluating a final product; these products are a fantastic way for children to demonstrate the skills they have learnt. Throughout the school, children are given the opportunity to consolidate their skills by creating their final product independently.
Each lesson builds on the previous and children's skills are improved upon throughout each topic. It is also clear to see the progression of skills throughout the school through the quality of products each year group creates. Subject and school leaders monitor the impact of our curriculum provision through completing regular monitoring, that includes listening to the voice of our children.

Inclusion

In line with the school's Inclusion Policy, each child will have an equal entitlement to all aspects of the Design and Technology curriculum. We believe that it is important for all children to experience the range of Design and Technology activities. We will use opportunities within Design and Technology to challenge stereotypes.

Throughout all Design and Technology work, care will be taken to adapt tasks and teaching approaches in order to take into account the whole spectrum of individual needs.
Where necessary additional adaptations will be made to support the children in accessing the curriculum, this may include:

- Use of additional or adapted equipment;
- Alternative ways of recording;

- Additional scaffolding to tasks;
- Adult-support.

Christian Distinctiveness

We offer children in our school many opportunities to examine the fundamental questions in life through the medium of Design and Technology. For example, in their work focusing on diet and nutrition, we look at the importance and relevance of food in so many different cultures and how through the medium of food we can celebrate religions. The children are encouraged to become independent, creative problem-solvers and thinkers as individuals and as part of a team. Through all aspects of teaching, we encourage pupils to link their creative designs to Christianity. Children are encouraged to link the planning, design, making and evaluation of areas to how Christianity influences our everyday lives and encouraging pupils to be resilient and keep trying, always striving for ways to improve through self-evaluation.