



Design and technology (D.T.) Curriculum Statement

"I have come that they may have life, and have it to the full. John 10:10"

National Curriculum Purpose of Study

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, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims:

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.

Design and technology Intent

The intent of the DT Curriculum at St. Andrew's is to provide plenty of opportunities for the children to learn, apply and strengthen essential skills required in the designing, making, evaluating and testing of an effective product for a given purpose and for a wide range of users.

It is also the intent of the DT Curriculum to ensure that children are well-equipped with useful technical knowledge to support them in the design and the 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.

In addition, 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.

Design and technology Implementation

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a

critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

In Early Years, the children develop essential basic skills in design and technology which prepares them for their transition into Year 1. This is by the teacher creating many opportunities for the children to carry out D&T related activities across all areas of learning.

By the end of Early Years, it is expected that the children will be able to:

- Construct with a purpose in mind.
- Use simple tools and techniques competently and appropriately.
- Build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary.
- Select the tools and techniques they need to shape, assemble and join materials they are using.

From Year 1 upwards, the children engage in a minimum of three DT units a year which will involve the children exploring, researching, designing, making, using technical knowledge/skills and evaluating.

EXPLORING

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

- Taking the product apart and looking at the materials 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.

RESEARCHING

The children will carry out research regarding the product that they are going to make so that they can use this research to support the design of their product.

DESIGNING

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 practise before making the product? (Some of these may have been previously taught skills which need refreshing or be completely new)

TECHNICAL KNOWLEDGE / SKILL

The children engage in a practical activity of practising technical knowledge or skill that they will be required to use when making their product. This may be a new skill or a skill previously practised but that required more practise.

MAKING

The children make their product.

EVALUATING

The children will not only evaluate the effectiveness of their product but also the skills that they applied.

Design and technology Impact

A robust Design and technology curriculum at St Andrew's will ensure that pupils will;

- have the skills, technical and practical expertise to perform everyday tasks in an increasingly technological world.
- demonstrate that they can approach problems creatively, using their knowledge from across the curriculum areas.
- have a good understanding of nutrition and cooking skills to aid them in their future lives.
- use their knowledge and understanding to design and make products for a range of users and to evaluate and test their ideas and the work of their peers.
- use their initiative, independence and resilience and manage risks effectively and develop these skills to be able to make a difference in their and others futures.