



# DESIGN & TECHNOLOGY POLICY



AUTUMN 2023



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# INTRODUCTION

At St Bedes we believe that design technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and making products and systems.

## STATUTORY REQUIREMENTS

The National Curriculum sets out three essential types of activities for pupils:

<u>Design</u>

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

#### Make

- Select from and use a range of tools and equipment to perform practical tasks
- Select from and use a wide range of materials and components, including construction materials, Textiles and ingredients, according to their characteristics

<u>Evaluate</u>

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

## AIMS

- To develop imaginative thinking in children and to enable them to talk about what they they like and dislike when designing and making;
- To enable children to talk about how things work, and to draw and model their ideas;
- To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- To explore attitudes towards the made world and how we live and work within it;
- To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- To foster enjoyment, satisfaction and purpose in designing and making.

## INTENT

Design and Technology aims to develop **ambitious** and **confident** children through **high quality teaching**. Our curriculum offers ample opportunities for the children to collaborate in pairs and small groups; as well as working independently on developing the confidence to **think critically** and **problem solve** designs and concepts throughout their lessons. We aim for the children to develop and build on their skills and knowledge across all areas of Design and Technology. This will be done by communicating and collaborating effectively with their peers and always exploring where their curiosity will take them; enabling them to **keep moving forward**.

## CURRICULUM

## <u>EYFS</u>

In the Early Years Foundation Stage, Design and Technology is mainly taught through the "Physical Development" and "Expressive Art and Design" areas of learning, following practice guidance from the EYFS. Skills and knowledge are taught in a thematic, cross curricular way and learning links directly to the topic being covered. Children are provided with opportunities to build and construct and are encouraged to plan and evaluate their work. They are also taught to handle a range of tools and equipment safely and appropriately.

## Key Stage 1 and Key Stage 2

In KS1 and KS2 Design and Technology is planned through termly topics following the 'Kapow' scheme of work. Teachers are advised to use this scheme of work as a basis for their planning but are encouraged to adapt plans to the strengths and needs of individules in their class. Within KS1 and KS2, children will sometimes work in groups and are encouraged to share ideas and help one another. The scheme of work has been designed to provide children and teachers with stimulating ideas and this allows the Design & Technology elements to be adapted to the needs of the pupils rather than the teacher. Each topic focuses on the development of specific skills and techniques.

In EYFS, Key Stage 1 and Key Stage 2 children will:

- Develop knowledge, skills and understanding
- Use developing, planning and communicating ideas
- Gain a knowledge and understanding of materials and components
- Carry out focused practical tasks that develop a range of techniques, skills, processes and knowledge
- Design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles
- Investigate and evaluate a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- Allow constructive conversation and language interaction between

## CROSS CURRICULAR LINKS

English: Children must describe and evaluate their products.

Maths: Children need to use scales and rulers to measure.

Science: Children to create simple working electrical circuits.

Computing: Children to use computer programmes when making designs.

History: Children will learn about previous inventions to aid them in creating modern superior models.

## PLANNING

We use the 'Kapow' scheme of work. This scheme of work was carefully selected and chosen because it was designed to cover the National curriculum objectives for Design and Technology. The scheme of work shows a clear progression of skills that are built throughout the Key Stages. The lessons are have adapatations provided for the teacher to choose from, to suit the needs of the children.

## IMPLEMENTATION

Here at St Bedes Design and Technology is taught once a term with three topics being covered within a school year. It will be taught across four lessons and is taught by a teacher or HLTA.

The Nursery and Reception classes follow the Physical Depelopment and the Expressive Arts and Design Early Learning Goals in the Early Years Foundation Stage framework. From Year 1 to Year 6 children follow the National Curriculum.

## Children will be given opportunities to:

• Development a knowledge and understanding of the way materials are used.

- The opportunity to work with a wide range of materials.
- The opportunity to explore a variety of structures and mechanisms to learn about how they work and how they can be modified to meet certain demands.
- Practical activities which will lead eventually to an appreciation of how control devices can be applied.
- Investigation of products to learn how they are constructed and how they function and to evaluate them with a view to improvement.
- The development of an appropriate technical vocabulary.
- The exploration of the meaning of quality in relation to designed things.
- The learning of safe working practices.
- The encouragement to use a variety of design skills both taught and acquired to communicate ideas and information in the best way.
- The acquisition of a range of taught techniques and manual skills to enable pupils to make their products progressively better.
- The opportunity to engage upon practical assignments which utilise their knowledge and skills and other areas of the curriculum to produce things that are needed.
- Use of information and communication technology (ICT) where appropriate to design and evaluate activities.

## THE ROLE OF THE SUBJECT LEADER:

- Monitor design and technology within the school
- Keep up to date with new developments and inform staff
- Encourage other members of staff in their design and technology teaching and give support where appropriate
- Ensure that design and technology resources are available and appropriate to the needs of the staff
- Ensure that design and technology maintains a strong profile within the school
- Keep a portfolio for design and technology that will include photographs of children at work, examples of planning and examples of children' work
- Audit resources regularly and take overall responsibility for equipment and resources

## IMPACT

As a result of the quality of teaching and learning opportunities occurring at St. Bedes, we have:

- Children who have a love for the subject and demonstrate confidence in design and technology that they are able to apply to other areas of the curriculum and also beyond school
- Most children having achieved their year group specific qattainment targets
- Children will ultimately know more, remember more and understand more about Design Technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out of school.

## SPECIAL EDUCATIONAL NEEDS

The class teacher differentiates by adapting resources and task to suit pupils with specific special educational needs and by making use of support staff. Where children are gifted in this area,

they are appropriately challenged in order that they reach their full potential. The scheme of work does offer challenge and differentiation for activities.

## HEALTH & SAFETY

The children will be taught how to use the equipment safely and correctly before practical tasks begin. Each year group will deal with tools that are appropriate for their age range.

The children will be clearly supervised at all times. All planning must take into account the children's:

- Personal safety.
- Safety of those around them.
- Safety of the environment, materials and tools.
- Safety of the products.

Pupils need space to work safely and clear access to the resource materials. Please refer to the school's Health & Safety Policy for more information.

## INCLUSION

We encourage, support and enable all pupils to reach their potential. It is important for all children to experience a range of Design and Technology activities, irrespective of race, gender, cultural background or physical disability. Appropriate attention is given to both boys and girls in varying design tasks.

## MONITORING AND EVALUATION

Assessments in Design and Technology are carried out at the end of each topic covered (one topic per term). The Lead teacher for Design and Technology will update their Lead teacher folder with assessments and monitors on-going assessments throughout the year. Samples of pupil's work and evaluations form Teachers and pupils are evidenced at the end of each topic to relfect upon the learning outcomes and next steps from each topic. The Lead Teacher ensures that the Assessments and Evaluations are reflected in their on-going subjects audit and yearly action plans.