

# Design and Technology Policy



## Costock CE Primary School

Where every child is a star! 

**'As God's children, we shine like Stars' Philippians 2 v.15**

### **Our Promise**

**Every day at Costock Church School we are experiencing and learning;**

**Service to God, each other and ourselves, Truth, Agape and Respect**

**As we leave each day we take these Christian Values with us**

<b>Approved by:</b>	SLT	<b>Date:</b> Autumn 2023
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### 1. Purpose of the policy

This policy reflects the aims and values of Costock C of E Primary School. It ensures all stakeholders, including staff, governors, parents and pupils, are working towards the same goals.

The purpose of this policy is to:

- Set out a framework for all teaching and non-teaching staff, giving guidance on planning, teaching and assessment
- Demonstrate adherence to the National Curriculum objectives and guidelines (if appropriate)
- Provide clear information to parents and carers about what their children will be taught
- Allow the governing board to monitor the curriculum
- Provide Ofsted inspectors with evidence of curriculum planning and implementation

### 2. Construction of Curriculum (Intent)

Through our Design Technology curriculum here at Costock, we will strive to: Teach design and technology as an inspiring and practical subject and work with a variety of materials and through the new skills they learn, so children get to design, make and evaluate a range of products. We will provide opportunities for children to work individually or as a team to design and create things in a variety of different ways that will enable and inspire children to become innovators. Teach a varied and balanced design and technology curriculum, progress skills and extend knowledge and vocabulary each year to support our children in developing a critical understanding of design and technology and its impact on daily life and the wider world. Promote cooking skills and children's enjoyment of this, whilst educating the importance of a balanced and varied diet. Make cross curricular links with design technology to other subjects where this is possible to make the subject relevant and meaningful. Ensure Design & Technology is accessible, ambitious and provides cultural capital to all pupils, including those who are disadvantaged, and pupils with SEND.

### 3. Aims and outcomes

At our school, we will see creative individuals who feel free to express themselves through different mediums of design and use of technology. To enable us to reach the desired impact for Design & Technology, we will ensure that:

- Childrens' understanding, knowledge and skills are monitored by class teachers and subject leaders. This is then used to inform differentiation, challenge and support.
- Assessment is used to inform future delivery of these sessions
- The children's Design & Technology project work will have a clear outcome and purpose, making this relevant and meaningful to learners.
- Children will be able to work effectively, both collaboratively and independently.
- The children develop creativity and confidence, which can then enhance their learning in other areas of the curriculum.

### 4. Teaching and learning

Design and Technology is taught in mixed-age classes by class teachers. Lesson plans are based around the subject's long-term plan and resources available, with objectives adapted to suit the stage of development for the pupils in each class. The teaching of Design and Technology might involve:

- Using a wide variety of quality resources tools and materials, empowering children to make informed choices on which to use
- choosing appropriate influential figures to study and communicating this frequently so that a broad variety of skills can be explored throughout a child's primary school life rather than repeated.
- Educational visits and outside visitors planned where possible.
- DT planned into other elements of the curriculum and enrichment activities to provide further opportunities for children to develop their schools.

The above list is not exhaustive and should be adapted to your context.

### 5. Curriculum overview

At Costock C of E Primary School art is taught through a topic approach alongside Art and Design. Our curriculum is carefully planned to engage and excite all our learners. Our long-term and medium-term plans map out the themes covered each term for each key stage. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term.

#### 5.1 Early Years Foundation Stage (EYFS)

Children will explore their DT Skills through the 'Development Matters' Creating with Materials to

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;

- Make use of props and materials when role playing characters in narratives and stories. 5.2 Key Stage (KS) 1

In KS1, pupils will:

### **Design**

- 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 [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

### **Evaluate**

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

### **Technical knowledge**

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products

### **Cooking and Nutrition**

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

## **5.3 Key Stage (KS) 2**

In KS2, pupils will:

### **Design**

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

### **Make**

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

### **Evaluate**

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

### **Technical knowledge**

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures

- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

### Cooking and Nutrition

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

- The topics we teach in Design and Technology are outlined in the programmes of study/curriculum map for history (see section 5.4).
- Detail of programmes of study/curriculum maps can also be found on the school website

## 5.4 Programmes of study

The included subject examples are taken from the National Curriculum for Design and Technology:

	Autumn term	Spring term	Summer term
EYFS	Junk Modelling	Textiles	Cooking and Nutrition
Year 1/2	Structures: Constructing a Windmill	Textiles - Puppets	Cooking and nutrition: Fruit and vegetables
Year 3/4	Digital world: Wearable technology	Cooking and nutrition: Eating seasonally	Structures: Constructing a castle
Year 5/6	Electrical Systems-Doodlers	Mechanical Systems - making a pop-up book	Cooking and nutrition-What could be healthier?

## 6. Cross-curricular links and SMSC

In DT, the children often work in a communal, social manner in group projects where discussions on preferences, compromises and sharing ideas are key. Working in groups allows children to learn from each other and to share ideas and feelings, and helps them to develop a respect for the abilities of other children and encourages collaboration. We also promote spiritual development by helping the community with our DT projects. Children also gain a strong sense of achievement through following a design through to a product, and having their ideas heard and valued.

In relation to children's moral development, we do many upcycling projects and emphasise the importance of reusing materials. Design Technology supports our children's cultural development work as they study various cultures and civilizations from around the world. This leads to a greater understanding of different ways of life and a respect for cultures that are very different from our own; how they can enrich our own lives.

Design and Technology shares links with the following subjects:

- English: development of literacy skills through labelling work

- › Maths: Understanding measurements to build products
- › RE: deeper understanding of different religions and their influence
- › ICT: use of the internet for research
- › Spiritual, moral, social and cultural (SMSC): encourages empathy towards other cultures and religions, and reflection on moral issues through design and technology

## 7. Assessment and recording

### 7.1 Assessment

Costock C of E uses assessment to enable staff to understand what pupils have learnt before, what they need to learn now and what they will learn next.

We assess the children's work in Design Technology whilst observing them in lessons and through peer and self-evaluation. At the end of a half term, the class teachers will note the progress of the children down on the agreed assessment proforma, stating which children have gone above and beyond for the unit, and which have not quite grasped the key teaching points. This proforma also identifies key strengths and key weaknesses that will need to be addressed in further planning to enable teachers to target and close gaps in pupil's learning. Digital images are taken by staff to provide evidence of children working and to record 3D objects that have been produced. Teachers use their own formative assessment skills in assessing whether children have problems or need challenging in Design and Technology.

We encourage all pupils to take responsibility for their own and their peers learning. A range of Assessment for Learning strategies are used, for example peer marking – the children regularly peer mark and are encouraged to comment on each other's work using vocabulary related to the skill taught, evaluation, self-assessments, the use of talk partners and end of unit teacher/pupil evaluation. Through these, both children and adults are able to recognise the progress being made.

At the end of each school term, pupils will be assessed within 1 of the following bands:

- Pre-Key Stage (PKS)
- Working Towards the curriculum (WT)
- Working at Expected (EXP)
- Working at Greater depth (GDS)

#### Marking

Children receive regular feedback and marking follows the school's marking policy.

### 7.2 Recording

In Design and Technology, pupils will record their learning in the following ways:

- Topic books or folders
- Reception-Individual Learning Journey

This may take the form of photographs, pictures, notes or written work, and may be worksheet-based or fully independent.

## 8. Resources

### 8.1 Textbooks and other equipment

Insert here a short list of resources, for example textbooks and educational equipment, used to teach the subject in question.

Include any online resources, apps, or schemes of learning that parents may want to access to help with homework and support their child's learning.

### 8.2 External speakers, local museums, trips

Insert details of how you use school trips to enhance your curriculum, and any outside speakers used by your school to further engagement with the subject.

## 9. Roles and responsibilities

### 9.1 Headteacher

The headteacher at our school will:

- › Support the subject leader but also hold them to account for the effectiveness of the subject
- › Support staff through the provision of training and resources
- › Monitor the planning and delivery of the subject
- › Ensure the requirements of the National Curriculum are met
- › Ensure this policy is reviewed according to the timescales set out

### 9.2 Subject leader

The subject leaders at our school will:

- › Prepare and review subject policy and curriculum plans
- › Promote the study of the subject throughout the school
- › Monitor the teaching and assessment of the subject
- › Attend appropriate CPD
- › Stay informed regarding developments in the study and teaching of the subject
- › Evaluate resources
- › Provide training and CPD to staff on the subject curriculum and its delivery, and keep them informed about subject developments nationally
- › Assess the impact of the subject curriculum on pupils' learning and development
- › Make presentations to governors on the subject and how it is being taught

### 9.3 Link governor

The link governor responsible Design and Technology at our school will:

- › Monitor the impact of the subject across the school and on pupils
- › Monitor teacher workload and professional development
- › Ensure subject action plans are suitable
- › Monitor the quality of resources
- › Keep track of pupil and parent engagement with the subject
- › Keep up to date with the curriculum (what's taught, why it's taught, and how it's taught)

## 9.4 Classroom teacher

Classroom teachers at our school will:

- › Teach and assess the subject according to the principles laid out in this policy
- › Report to the subject leader
- › Maintain subject knowledge and appropriate CPD

## 9.5 Parents

The parent community at our school will:

- › Make sure their children are prepared for learning
- › Monitor the completion of homework

## 10. Inclusion

Teachers set high expectations for all pupils in Design and Technology They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- › More able pupils
- › Pupils with low prior attainment
- › Pupils from disadvantaged backgrounds
- › Pupils with special educational needs (SEN)
- › Pupils with English as an additional language (EAL)

At our school we strive to plan and deliver an effective Design Technology curriculum to all children. As throughout the rest of the curriculum, Design Technology is planned for accessibility of pupils with Special Educational Needs, and will be ambitious to challenge all children. Teacher judgement will ensure that all pupils receive suitable challenges for their level in this area so that they are motivated by the accessibility of this with many stimulating challenges. Relevant scaffolds or adult support will be implemented to support pupils where necessary.

Where a child has an Individual Education Plan, this may include, as appropriate, specific targets linked to Design Technology or a creative element that is personal to them.

Teachers will plan lessons so pupils with SEN and/or disabilities can study Design and Technology, wherever possible, and ensure that there are no barriers to every pupil achieving.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in Design and Technology

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

## 11. Links to other policies

This subject policy links to the following policies and procedures:

- › Curriculum policy
- › Assessment policy
- › Marking and Feedback policy
- › SEND policy

## 12. Monitoring and review

This policy will be reviewed by SLT every 3 years or sooner if required.