# Coton-in-the-Elms Primary School Design and Technology Policy

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Perseverance   Enjoyment   Awe & wonder   Compassion   Excellence

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# INTENT

## 1. Introduction

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.

Certain Health and Safety concerns are presents with Design and Technology, including storage of materials and tools and the use of these during lessons. Children must be given clear instructions prior to use of the equipment and tools to ensure that they are using them safely. Pupils will be supervised at all times during Design and Technology activities.

## 2. Ethos & Aims

At Coton-in-the-Elms C of E Primary School, we believe that Design and Technology s an inspiring, rigorous and practical subject. It allows pupils to use their creativity, imagination, make and design products and to solve real life and relevant problems, thus, helping children to develop skills they will use when they are older. We hope to encourage children to take risks, develop resourcefulness and to become innovative. Children will develop a critical understanding which will help them with daily life and the wider world. We believe that Design and Technology can provide rich learning experiences to help to contribute to children's creativity, culture and wellbeing.

# INMPLEMENTATION

## 3. How is it Taught?

We aim to ensure continuity and progression by providing appropriate Schemes of Work based upon a 1-year cycle of themes for each year group from Foundation Stage through to the end of Key Stage 1 and a 2-year cycle of themes for each year group from the start of Key Stage 2 to the end of Key Stage 2.

Design and Technology is taught in different methods in Early Years Foundation Stage compared to Key Stage 1 and Key Stage 2.

In EYFS, Design and Technology can be adult led or child led. Children will usually receive 1 adult led Design and Technology lesson per theme to allow children to access knowledge and learn new techniques. Each day the children have access to Design and Technology equipment in different areas, either in the form of scissors, real life items, playdough, tools, contruction, etc. Children also have opportunities to access a different form of creativity

through the interactive whiteboard. Children are encouraged to use these areas, be creative as possible and to express themselves in different forms.

In Key Stage 1 and Key Stage 2 children will have Design and Technology lessons within their class on a regular basis – these can be weekly lessons or taught as a block unit. Where possible, Design and Technology will be taught will be with a thematic approach. This means that the teacher will aim to link the overarching topic for that term with the Design and Technology so it is not seen as a discrete subject. Children will still follow the correct progression for their year group, but it allows teacher more flexibility of how it is timetabled.

It is encouraged that all teachers display some kind of Design and Technology work to showcase the talents and efforts children have put in. It provides opportunities for other students to learn from each other and to appreciate the work of others. It allows for reflection, stimulation of creativity and understanding. If the items designed are too large to go on the display, teachers are encouraged to take photographic evidence of what each child has made which can be displayed or placed in children's scrap book.

# 4. Planning & Progression

Early Years Foundation Stage:

During Reception, children are working towards achieving the Early Learning Goal. To get to this level, children should to be taught:

- To use simple tools to effect changes to materials.

- To handle tools, object, construction and malleable materials safely and with increasing control.

- To show understanding for the need for safety when tackling new challenges and consider and manage some risks.

- To show understand of how to transport and store equipment safely.

- To practise some appropriate safety measure without direct supervision.

Key Stage 1:

Throughout Year 1 and Year 2, children, through a variety of creative and practical activities, should be taught the process and skills of designing and making in a variety of contexts and environments. When designing and making, pupils should be taught to:

- Design:

  o Design purposeful, functional, appealing products for themselves and other users based on design criteria.

  o Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

- Make:
  - o Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].
  - o Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

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

- Technical Knowledge
  - o Build structures, exploring how they can be made stronger, stiffer and more stable.
  - o Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

By the end of Key Stage 1, children are expected to apply and understand the matters, skills and processes specified above.

Key Stage 2:

Throughout Key Stage 2, children, through a variety of creative and practical activities, should be taught the skills needed to engage in the process of designing and making and work in a range of different contexts and environments. When designing and making, children should be taught to:

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

- Make
  - o Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].
  - o Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

- Evaluate
  - o Explore and evaluate a range of existing products.
  - o 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.

By the end of Key Stage 2, children are expected to apply and understand the matters, skills and processes specified above.

## 5. Support for SEND Pupils & Inclusion

It is essential for teachers to consider SEND pupils during Design and Technology. Teachers must provide opportunities for SEND children to achieve. An example: this may be done by providing larger and thicker equipment to help children with fine motor issues. Another way to support development of SEND children is to providing children with differentiated techniques and skills within the same category which will allow children to progress, perfect techniques and built confidence. In addition to these techniques, teachers may want to encourage team work and working together to help support SEND children – although teachers need to be aware of this when assessing children's work. When teaching Design and Technology, SEND children may need written support for the planning and evaluating lessons.

## 6. Cross Curricular Links

At Coton-in-the-Elms C of E Primary School, we teach a rich curriculum using a thematic approach. We plan for Design and Technology making links to an overarching theme, where possible, linking back to the National Curriculum objectives for each year group. If these links are not possible to make with the overarching theme – teachers can teach Design and Technology as discrete lessons.

Cross Curricular links may include:

Maths - the use of tables, graphs to present market research, measure during the making stage.

English - written evaluations and market research, communication and language.

Computing - carrying out online research prior to making a product.

## IMPACT

## 7. Assessment & Recording

At Coton-in-the-Elms C of E Primary School, we work hard to assess children's learning through the lessons, as part of our formative assessment. If any children have misconceptions, these will be dealt with in the lesson promptly. Sometimes, the teacher may feel that prompts may be more beneficial to allow children to critically think and problem solve to find a solution or find why something went wrong themselves instead of being directly told. This is essential in Design and Technology lessons to allow children to

continuously improve their problem solving, critical thinking and technique. This can either be done on a one-to-one basis, during group work or as a whole class. Most feedback during Design and Technology will be oral feedback. Upon completion of the piece of a project, the teacher is to assess it. It is essential to upload assessments of children to an ongoing formal tracker after the lesson has been taught.

## 8. Monitoring

The subject leader will monitor standards and learning by communication with teachers and informally looking at the work completed by classes. The attainment will also be monitored by the subject lead using the ongoing assessment tracker. The Design and Technology leader will keep and up to date Subject Leader File which will include: schemes of work, curriculum coverage, evidence of Design and Technology lessons and work and school displays.

The subject lead will continue to monitor subject coverage each year as alterations can be made onto the 2-year cycle is needed to ensure coverage is adequate.

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