Coton-in-the-Elms Primary School

Design Technology Policy

Version	Last Review	Reviewed by	Next Review	Comments
1	March 2020	E Walton	March 2022	New Policy
2	March 2023	D Lester	March 2025	Reformatted
3	March 2025	M Panton	March 2027	New Policy to separate art from design and technology and to reflect the revised curriculum

Perseverance Enjoyment Awe and Wonder Compassion Excellence

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INTENT

1. **Introduction**

The National Curriculum for Art 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 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 and prepare food.

2. Ethos & Aims

At Coton-in-the-Elms Primary school, we believe that Design Technology lessons will engage, inspire and challenge all children to think creatively and develop design understanding. Studying Design Technology can stimulate creativity and imagination which can encourage and allow children to express themselves. The children will learn to develop and express their individual interests, thoughts and ideas alongside building confidence and critical-thinking skills. They know that Design Technology is reflected in our history, and contributes to the culture and creativity around us. Within Design Technology lessons the children will have access to a wide range of high quality materials. It can supply children with a variety of experiences (tactile and visual) to gain different skills, concepts, knowledge and transferable skills. Children will be able learn how to evaluate not only their own work but that of well-known designers in the wider world and use this knowledge to develop their own work.

Design Technology can also promote the wellbeing and spirituality of children. Design Technology provides rich opportunities within the school curriculum to allow children to access and learn about how design reflects and shapes our history and contributes to the culture and wealth of our nation.

IMPLEMENTATION .

3 How is it Taught?

The Design Technology curriculum at Coton-in-the-Elms Primary school is taught through a spiral progression of skills and knowledge where children can revisit and build on previous learning. It is taught weekly by teachers in years 1-6 for three half terms in a school year.

Design Technology is taught in different methods in the Early Years Foundation Stage compared to Key Stage 1 and 2. In EYFS, Design and Technology can be adult or child led. Children will receive 2 adult led lesson a week for three half terms in an academic year to all ow children to access knowledge and learn new techniques. These lesson are based on the learning topic for that week. Each day the children have access to construction materials in the creative area, either in the form of boxes, straws, scissors, joining materials etc. Children are encouraged to use the creative area to design and build.

Our Design Technology curriculum enables children to think like designers: choosing, building and linking information together to better their understanding of and skills within the subject. Through Design Technology children will learn the skills of exploring existing products, modelling, using tools, making models and products, giving opportunities to explore and evaluate different creative ideas. The children will also learn about a number of focus designers. They will be taught relevant skills and then design and produce a final 'masterpiece' of work to fulfil a design brief.

Our lessons are sequenced to ensure progression of skills and knowledge. The curriculum is planned to identify 'sticky learning' for each topic, which is shared with children at the start of the unit. These support assessments at the end of a unit of work. Staff have received training about the Science of Learn. Based on this educational research, each lesson begins with a revisit activity, drawing on prior learning from the previous lesson or previous unit of work and from previous units to help children build schemata. This is to ensure that the knowledge gained over time is revisited and embedded into their memory. Opportunities to **revisit prior learning** and to have new and repeated encounters with contexts will build a breadth and depth of knowledge and build on existing **schema**.

In Design and Technology lessons the children are given the opportunity to be reflective and evaluate their work, thinking about how they can make changes and keep improving all the time. We encourage the children to take risks, experiment and reflect on why some ideas and techniques are successful or not.

Healthy and Safety

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

Vocabulary links

The National Curriculum for Design Technology reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their artistic vocabulary. They must be assisted in making their thinking clear, both to themselves and others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

Children will learn a variety of design vocabulary as they progress through the subject. Much of this new subject-specific vocabulary is classed as Tier 3 vocabulary and will be taught explicitly as part of the unit of work, giving the mean in a context.

Working Walls

Teachers will use a working wall, where appropriate, to develop their sequence of lessons. Photos, examples of work and class resources can be kept and displayed when effective to do so.

In Key Stage 1 and Key Stage 2 children will have Art and Design lessons within their class on a regular basis – these can be weekly lessons or taught as a block unit. Children will still follow the correct progression for their year group, but it allows teacher more flexibility of how it is timetabled.

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:

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

- To use what they have learnt about media and materials in original ways, thinking about uses and purposes. Represent their own ideas, thoughts and feeling through design and technology, art, music, dance, role play and stories.

Key Stage 1:

Throughout Year 1 and Year 2, children should be taught to:

Design

- design purposeful, functional, appealing products for themselves and others based on design criteria.

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

Evaluate

- explore and evaluate a range of existing products

- evaluate their ideas and products against design criteria

Cooking and Nutrition

- use basic principles of healthy and varied diet to prepare dishes

- understand where food comes from

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 Year 3 - 6 children should be taught to:

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 product

- 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 technology have helped shape the world.

Technical Knowledge

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

- understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages)

- 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, caught and processed.

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

5. Support for SEND Pupils & Inclusion

At Coton-in-the-Elms Primary School, we teach Design Technology to all children, whatever their ability and individual needs. Design and Technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Design Technology teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details, see individual whole-school policies for e.g. Special Educational Needs.
When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style and differentiation – so that we can take some additional or different action to enable all children to learn more effectively. We enable all pupils to have access to the full range of activities involved in learning science.

It is essential for teachers to consider SEND pupils during Design Technology. Teachers must provide opportunities for SEND children to achieve. An example: this may be done by providing 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.

IMPACT

6. Assessment & Recording

Teachers will assess children's work in Design Technology by planning 'Sticky Learning' questions which are shared with the children at the start of a unit of work. The teacher will then use these questions as a scaffold for their teaching and refer to them throughout the unit. At the end of a unit of work the children will complete an exit ticket based upon the 'Sticky Learning' questions. In Key Stage One the teacher may choose to record the children's responses for them, either individually or as a whole class. The teacher will then use these responses, along with their formative assessments to judge the attainment of the children. Formative assessment may be judged on completion of a piece of work, the teacher assesses it, and use this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress. Children are encouraged to make peer and self-assessment judgements about how they can improve their work. Teacher's feedback identifies how well the pupil has done and can support misconceptions or deepen their understanding through open ended questions.
At the end of each term, an overall judgement will be made for children's understanding of the science concepts taught. This will be entered on to Fisher Family Trust (FFT).

Where there are gaps in knowledge, teachers adapt the lessons to address these. These adjustments are noted on the planning document and kept in class files. Where there may be gaps in coverage or pupils needed more time to complete the learning, time is afforded within the long term plan for knowledge to be revisited and skills to be practised again.

7. Monitoring

The coordination and planning of the Design Technology curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in art and design and providing a strategic lead and direction for this subject;
- gives the head teacher monitoring reports in which strengths and weaknesses in art and design are evaluated and indicates areas for further improvement;
- uses specially allocated regular management time to review evidence of the
- children's work, and to observe the subject across the school. The Design Technology Lead will meet with the governor with responsibility for the subject to make them aware of developments in the subjects and levels of attainment across the school.

The quality of teaching and learning in Design Technology is monitored and evaluated by senior leaders and the art leader as part of the school's agreed cycle of monitoring.