



Design and Technology Policy

Policy Creation and Review	
Author(s)	Rebecca Davies
Last Review Date	March 2023
Ratified by Governing Body	
Next Review Date	March 2025

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Vision for Design and Technology

Purpose (Intent)

At New City, we aim to deliver an imaginative and practical Design and Technology curriculum to inspire pupils' creativity. Pupils research, design and make products that solve problems across a variety of real-life contexts, drawing upon their knowledge from other subject areas. We want to inspire pupils to explore the world around them, carefully considering problems and how technology and resources can be used creatively to develop solutions.

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- **Aims (Implementation)**
 - To research, critique and test the ideas of other designers.
 - To design prototypes, products and solutions to a variety of real-world problems, carefully considering the design, functionality and audience needs.
 - To develop and apply the creative, technical and practical skills needed to make a wide range of products.
 - To evaluate their solutions, considering ways in which they could be further improved.
 - To understand and apply the principles of nutrition and cooking to make a variety of dishes in order to prepare children for a healthy lifestyle now and later in life.

Outcomes (Impact)

Children work creatively and practically to design purposeful, functional and appealing products to solve a problem, drawing upon the world around them and the ideas of other key designers. They are able to communicate their ideas in a variety of ways, including discussions, drawings, templates, prototypes, writing and technology. They make informed decisions about the materials and tools that they use. Children are able to apply their knowledge, skills and understanding of a range of mechanisms, technology and design properties, in order to inform their decisions. Children explore and evaluate their own ideas and those of others, considering ways of improving the product. As part of Design & Technology, children learn the principles of nutrition and healthy eating, developing crucial life skills and a love for cooking.

1 Introduction

- 1.1 Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children design and create products that consider function and purpose and which are relevant to a range of sectors (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

2 Aims and objectives

- 2.1 The aims of design and technology from EYFS to Year 6 are:

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 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, as well as chopping and slicing) accurately. Select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate, taste.

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.

Develop, Use and Apply Technical Knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products. Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products. Understand some of the ways that food can be processed and the effect of different cooking practices.

3 Teaching and learning style

3.1 The school uses a variety of teaching and learning styles in design and technology lessons. Our principal aim is to develop the children's knowledge, skills and understanding in design and technology. We ensure that the act of investigating and making something includes exploring and developing ideas, and evaluating and developing work. We do this best through a mixture of whole-class teaching and individual/group activities. Teachers draw attention to good examples of individual performance as models for the other children. They encourage children to evaluate their own ideas and methods, and the work of others, and say what they think and feel about them. We give children the opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales. Children also have the opportunity to use a wide range of materials and resources.

3.2 We recognise the fact that we have children of differing ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- Setting components of the learning that lead to shared composite goals, that are open-ended and can have a variety of responses.
- Setting mastery activities to ensure children deepen their understanding of the skills and knowledge of art and design
- Ensuring the needs of all children are met including the more able and the lowest 20%
- Providing a range of teaching and learning strategies
- Using additional adults to support the work of individual children or small groups.

4 Design and technology curriculum planning

4.1 Design and technology is a foundation subject in the National Curriculum. At New City Primary School we use the National Curriculum and a bespoke 6 week structure (the DT cycle) for lessons as the basis for our curriculum planning in DT to ensure the components and composite goals for the subject are clearly set out.

4.2 We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short-term. Our long-term plan maps out the composite goals covered in each term during the key stage. Our design and technology subject leader works this out in conjunction with SLT and teaching colleagues in each year group.

4.3 Our medium-term plans, give details of each unit of work for each term. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term. The design and technology subject leader is responsible for keeping and reviewing these plans.

4.4 We plan the activities in design and technology so that they build upon the prior learning of the children. While we give children of all abilities opportunity to develop their skills, knowledge and understanding, we also build planned progression into the scheme of work, so that there are mastery elements for all the children as they move up through the school.

5 The Foundation Stage

- 5.1 We encourage creative work in the Nursery and Reception classes as this is part of the Foundation Stage of the National Curriculum. We relate the creative development of the children to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. The children's learning includes design, building and creating. The range of experience encourages children to make connections between one area of learning and another and so extends their understanding.
- 5.2 We provide a rich environment in which we encourage and value creativity. Children experience a wide range of activities that they respond to, using the various senses. We give them the opportunity to work alongside artists and other adults. The activities that they take part in are imaginative and enjoyable.

6 Teaching design and technology to children with special educational needs

- 6.1 At our school we teach design and technology to all children, whatever their ability. Design and technology is a part of the school curriculum policy. This helps to provide a broad and balanced education to all children. Through our art and design teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.
- 6.2 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 variation - so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.
- 6.3 Intervention through SEN Support and EHC plans will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to art and design.
- 6.4 We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a visit to a design studio, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7 Assessment and recording

7.1 We assess the children's work in design and technology whilst observing them working during lessons. As a class we discuss the progress made by children against the learning objectives for their lessons. At the end of a unit of work we make a judgment against the National Curriculum expected standards.

7.2 The design and technology subject leader keeps evidence of the children's work in a portfolio. This demonstrates what the expected level of achievement is in art and design in each year of the school.

8 Resources

8.1 We have a wide range of resources to support the teaching of design and technology across the school. The design and technology anticipates resourcing the academic year prior to them being needed and orders materials where appropriate.

8.2 Where appropriate, projects will use recycled materials to contribute to the preservation of our global environment as global citizens.

9 Monitoring and review

9.1 The monitoring of the standards of children's work and of the quality of teaching in design and technology is the responsibility of the design and technology subject leader. The work of the subject leader involves supporting colleagues in the teaching of design and technology, being informed about current developments in the subject, and providing a strategic lead, attending training, booking workshops and direction for the subject in the school. The design and technology subject leader gives the head teacher a half term summary report in which s/he evaluates the strengths and weaknesses in the subject, pupil voice, what went well, what needs to happen next and any extracurricular activities within the subject. The design and technology subject leader monitors DT books and DT work within the classroom as well as planning again on a half term basis providing teachers with constructive feedback. The assessment for design and technology is done on a half term basis when each topic is complete. The skills go over a whole key stage. Evidence is collected in individual sketchbooks and photographed display work and progress is measured against the National curriculum expected standard.