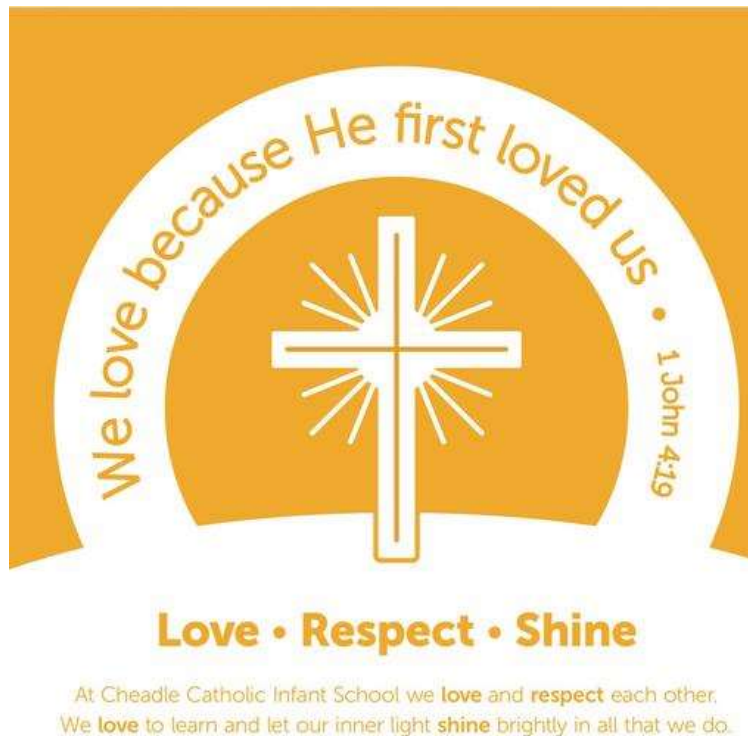


## Design Technology Rationale:



### Intent:

At Cheadle Catholic Infant School, we believe, we as teachers, have a significant and valuable role to play in educating our children. We want them to receive an exciting and relevant curriculum by providing activities that will develop children's varying interests and capabilities. They must understand their own and others' cultural heritages by studying a diverse range of male/female designers as well as local and global themes. We have ensured that our scheme of work is relevant and bespoke to our school. Design Technology lessons should be inspiring, rigorous, and practical, and pupils should be encouraged to use their creativity and imagination. Pupils should design and make products that solve real and relevant problems within a variety of contexts, considering their own needs, wants and values. The children should acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. By evaluating past and present design technology, children will be given the opportunity to reflect upon their uses and effectiveness.

### EYFS:

In the Early Years Foundation Stage, children should be given plenty of opportunity to experiment with a range of resources, tools and techniques. Young children should explore by trial and error, but they will also need time to observe adults modelling how resources, tools and techniques are used correctly. They will work independently and in groups to develop independence and self-confidence but also learn how to work alongside their friends to develop social skills and the ability to work as a team. Design technology is inextricably linked to exploration and investigation. Children need opportunities to use all their senses to find out about objects, tools and materials. By designing

# **Design Technology Rationale:**

things, making things, changing and modifying things children gain a greater understanding of the world around them. Design technology will be taught through a bespoke sequence of lessons and experiences linked to the areas of 'Understanding the World' and 'Expressive Arts & Design'. It is important children learn the necessary design technology vocabulary relevant to their year group. This must be covered and revisited throughout.

## **KS1:**

As pupils progress through the design technology scheme of work, they should continue to work on all the above, but also be able to think critically and develop a more rigorous understanding of design technology. Through a variety of creative and practical activities, pupils should be taught the knowledge and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts e.g.: home, school, gardens, playgrounds, the local community, industry and the wider environment. They will design and make products that solve real and relevant problems in a variety of contexts, considering their own and others' needs, wants and values. They will understand that design technology makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

## **Implementation:**

The knowledge and skills that children must acquire are arranged into topics throughout the school and this ensures progression. Within each topic there are opportunities when children can revise and revisit the skills and knowledge, they have learnt so far. Focussing on skills means that children are given opportunities to express their creative imagination. They should also develop mastery in the processes of designing, making, evaluating and technical knowledge.

## **Design:**

- Pupils should 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.
- Pupils should generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes, pattern pieces and computer-aided design.

## **Make:**

- Pupils should select from and use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing as well as chopping and slicing accurately.
- Pupils should select from and use a wider range of materials, ingredients and components, including construction materials and textiles according to their functional and aesthetic qualities.

## **Evaluate:**

- Pupils should investigate and analyse a range of existing products.
- Pupils should evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

## Design Technology Rationale:

- Pupils should understand how key events and individuals in design technology have helped shape the world.

### Develop, Use and Apply Technical Knowledge:

- Pupils should apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Pupils should understand and use mechanical systems in their products.
- Pupils should apply their understanding of computing to program, monitor and control their products.

Design technology lessons are taught as a block so that children's learning is focused throughout each unit of work.

Each unit of work begins with a recap of previous knowledge and related vocabulary. This helps children to retrieve what they have learnt previously and promotes a shift in long term memory, ensuring that new knowledge is taught in the context of previous learning.

### Impact:

We believe that the children at Cheadle Catholic Infant School will appreciate and enjoy design technology sessions. They will develop positive attitudes towards the subject and develop their own perseverance, self-confidence, independent thinking and cooperation. They will feel proud of their achievements in design technology when they see their work displayed in the classroom, in school, online or when displayed within the local community. The children will acquire knowledge of designers from our own school community, designers from our own country, and the wider world.

Our children will:

- 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 to design and make high-quality prototypes and purposeful products for a wide range of users and critique, evaluate and test their ideas and products and the work of others,
- Understand and apply the principles of nutrition.
- Design and make a range of products with a good quality finish. (Appropriate to the age and ability of the child).
- Be able to work as part of a team to collaborate
- Become risk taking, resourceful, innovative, enterprising and capable citizens.
- Develop a critical understanding of design technology, its impact on everyday life and the wider world through evaluation of past and present design technology.
- be prepared for future careers within design technology
- to promote practical skills and knowledge about designing, making and evaluating products in real-life contexts
- make links to other learning areas e.g. science, technology, engineering, maths & art
- promote sustainability and awareness of the environment

Helen Tetlow Updated September 2023  
Design Technology Subject Leader