DESIGN AND TECHNOLOGY CURRICULUM STATEMENT

At Carter's Charity, our vision is to provide our children with a high quality, inclusive education inspired by British Values. Excellent teaching and learning form the basis of all our work delivered through a caring, creative ethos.

Our children are encouraged to have a positive attitude, develop resilience in their approach to learning, become confident in their own ability, independent and motivated to achieve their full potential.

We believe that it is our duty to make learning fun, engaging, memorable, accessible and ambitious for all children, instilling in them a love of learning.

We take seriously our duty to teach children about the fundamental British Values of mutual respect and tolerance, democracy, the rule of law and individual liberty. These values are woven through our curriculum so that our learners leave us prepared for life in modern Britain.

Intent

Through our Design and Technology curriculum at Carter's Charity Primary School, we want all our children by the end of year 6 to have developed the skills they need for designing and making through a range of creative and practical activities. We aim to prepare pupils to participate in our everchanging technological world using the skills and techniques developed in our Design and Technology curriculum to ensure that children are equipped for the next stages in their lives. Children are given the opportunity to develop their ability to investigate, analyse and evaluate a range of products, applying their understanding and technical knowledge across a range of products and materials. We provide opportunities for children to work in a range of relevant contexts offering valuable life skills. Underpinning all this is a key focus on improving our children's communication skills, vocabulary, and the ambition so that all children will be designers regardless of background, needs or ability. Our

curriculum gives children a hands-on approach that also uses other areas of the curriculum, such as Mathematics, Science, Computing and Art, to be creative and solve problems.

Implementation

Design and Technology is taught termly at Carter's Charity in line with the National Curriculum for Key Stage 1 and Key Stage 2 and in line with the Development Matters Framework for EYFS. Through a variety of creative and practical activities, we teach children the knowledge and skills required to engage in the process of researching, designing, making and evaluating. We use Kapow when planning and teaching our lessons to ensure our Design and Technology curriculum builds on previous learning and provides both support and challenge for learners. We follow a scheme that ensures progression of skills and covers all aspects of the Design and Technology curriculum. Children design products with a purpose and intended user in mind, considering their own and other's needs, wants and values through the design process. Children create the product by considering the function and by using a variety of tools and materials whilst applying the technical knowledge they have acquired. Here at Carter's Charity, we encourage children to solve real and relevant problems as both an individual and collaboratively, ensuring pupils have ownership over their learning. We aim, wherever possible, to make meaningful cross curricular links to other areas of the curriculum.

Impact

Throughout their time at school, we strive to ensure our children develop joy and enthusiasm for Design and Technology. We aim to expose the children to various craftspeople and highlight the diverse careers and opportunities that can arise from having Design and Technology skills. Progress in Design and Technology is shown by consistently reviewing and analysing children's work, following our assessment policy to ensure that progression of skills is taking place. Namely through:

- Talking to children about what they know.
- Observing how children perform in lessons.
- Looking at children's skills and knowledge in their work over time.

Children's progress will be demonstrated by the outcomes achieved and through the process that led to them. Children will develop enjoyment and confidence in Design and Technology and learn how to take risks, becoming resourceful and innovative learners as they develop an understanding of the impact Design and Technology has on daily life and the wider world. Through the implementation of our curriculum, we ensure that children leave Carter's Charity being creative and confident designers with the skills and attributes which can be used beyond school and into adulthood.

National Curriculum Expectations

Early Years

During the EYFS pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have the opportunities to learn to:

- Use different media and materials to express their own ideas.
- Use what they have learnt about media and materials in original ways, thinking about form, function and purpose.
- Make plans and construct with a purpose in mind using a variety of resources.
- Develop skills to use simple tools and techniques appropriately, effectively and safely.
- Select appropriate resources for a product and adapt their work where necessary.
- Cook and prepare food adhering to good health and food hygiene routines.

Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed in an iterative process of designing and making. They should work in a range of relevant contexts (for example the home and school, gardens and playground and the wider environment).

When designing and making, pupils should be taught to:

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 and 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 form 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.

National requirements for food and nutrition at KS1

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition of healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning to cook is a crucial life skill that enables pupils to feed themselves and others affordably now and in later life.

Pupils should be taught to:

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

Key Stage 2

Within key stage 2 key events and individuals that have influenced the world of DT are teaching focuses that are to be covered.

The use of computer programmes and applications are also a key focus to be utilised by children in their design of their product.

National curriculum requirements at Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, for example the home, school, leisure, culture, enterprise, industry and the wider environment.

When designing and making, pupils should be taught to:

Design

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are f0r for purpose, aimed at 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, such as cutting, shaping, joining and finishing, accurately.

- Select form and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional qualities 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 DT have helped shape the world.
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Understand and use mechanical systems in their products, (for example as gears, pulleys, cams, levers and linkages).
- Understand and use electrical systems in their products (for example series circuits incorporating switches, bulbs, buzzers and motors).
- To apply their understanding of computing to programme, monitor and control their products.

National Curriculum requirements for food and nutrition at KS2

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well now and in later life.

Pupils should be taught to

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