

<b>Curriculum Policy:</b>	<b>Design and Technology</b>
<b>Author:</b>	<b>Romana Esa</b>
<b>Review Date:</b>	<b>September 2025</b>

### Vision:

Design and Technology is a dynamic, challenging, and hands-on subject that inspires students to think creatively and devise solutions to problems both independently and collaboratively. At Cleves Primary School, we foster our students' creativity and imagination by encouraging them to design and create products that address real and meaningful problems across a range of contexts, considering their own and others' needs, wants, and values. We aim to make interdisciplinary connections wherever possible, linking Design and Technology with other subjects such as mathematics, science, engineering, computing, and art. Students also have opportunities to critically examine past and current design technology, evaluate its uses and effectiveness, and develop their skills as innovators and risk-takers. Overall, Design and Technology is an integral part of our curriculum that prepares students to tackle real-world challenges with confidence and ingenuity.

### Action

Design and Technology is an essential component of the school's curriculum, and we are committed to delivering a high-quality program that fosters learning and development. To achieve this goal, we have implemented several measures, including a well-structured DT curriculum with a yearly overview that ensures progression across year groups in all areas of DT, including textiles, mechanisms, structures, food, and electrical systems. Projects are carefully planned and resourced to provide students with hands-on, enriching experiences that build their skills and knowledge while fostering awareness of health and safety issues related to the tasks at hand.

Throughout Year 1 to Year 6, each project addresses the principles of design, make, and evaluate, while incorporating relevant technical knowledge and understanding in real-world contexts. Additionally, students are introduced to specific designers, chefs, nutritionists, and other professionals who inspire and cultivate an appreciation for human creativity and achievement, thereby enriching their cultural capital and providing a valuable resource for future learning.

### Impact:

We ensure that children develop the necessary creative, technical, and practical skills to confidently perform daily tasks and successfully engage with an increasingly technological world. This includes building a repertoire of knowledge, understanding, and skills to design and create high-quality prototypes and products for a diverse range of users. Students will learn to critique, evaluate, and test their own ideas and products, as well as the work of others. Additionally, students will develop an understanding of nutrition and learn how to cook. They will design and make a variety of products, with a focus on achieving a good quality finish appropriate for their age and ability. Taking risks and being resourceful, innovative, and enterprising are encouraged as part of becoming capable citizens. Through the examination of past and present design and technology, children will gain a critical understanding of its impact on daily life and the world around them. A high-quality design and technology education are essential in fostering creativity and contributing to students' overall development.

### Equality, Diversity and Inclusion:

All pupils will be given equal access to the entire DT curriculum, including fieldwork and educational visits. Where required, pupils with SEND will be provided with additional support in order to fully engage with the DT curriculum.

Where it is inappropriate for a pupil to participate in a specific lesson because of reasons related to any protected characteristics, the lesson will be adapted to meet the pupil's needs and alternative arrangements involving extra support will be provided where necessary.

The school aims to provide more academically able pupils with the opportunity to extend their DT studies by deepening their understanding and skills in design and technology. This will include advanced projects and opportunities for independent research, allowing students to explore areas of personal interest and develop their creativity. The goal is to help students reach their full potential in design and technology and to prepare them for further study.

Our Design and Technology overview at Cleves follows the National curriculum. Our aims within Design and Technology are that every child has the opportunity to express themselves using a range of different media through a specific skills-based curriculum.

We focus on different aspects through food technology, materials, mechanisms, textiles, electronics and graphics. Children gain knowledge by designing and making products that solve real and relevant problems using their creativity and imagination. We encourage our pupil to have a passion and love of design to support them along their journey of becoming designers in an increasingly technological world.

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:

- DfE (2013) 'National curriculum in England: Design and Technology programmes of study'
- DfE (2017) 'Statutory framework for the early years foundation stage'

This policy operates in conjunction with the following school policies:

- Educational Visits and School Trips Policy
- Health and Safety Policy

### **Roles and responsibilities**

#### **The governing board will be responsible for:**

- Ensuring a broad and balanced art curriculum is implemented in the school.
- Ensuring the school's art curriculum is accessible to all pupils.

#### **The headteacher will be responsible for:**

- The overall implementation of this policy.
- Ensuring the school's art curriculum is implemented consistently.
- Ensuring appropriate resources are allocated to the art curriculum.
- Ensuring all pupils are appropriately supported.
- Appointing a member of staff to lead on the school's approach to teaching art.

#### **The art lead will be responsible for:**

- Preparing policy documents, curriculum plans and schemes of work for Design and Technology.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of Design and Technology, providing support for staff where necessary.
- Organising the deployment of resources and carrying out an annual audit of all Design and Technology resources.
- Leading staff meetings and providing staff members with the appropriate training.
- Advising on the contribution of Design and Technology to other curriculum areas.

#### **Art teachers will be responsible for:**

- Acting in accordance with this policy.
- Liaising with the DT lead about key topics, resources and supporting individual pupils.
- Ensuring that all relevant statutory content is covered within the school year.
- Monitoring the progress of pupils in their class and reporting this during ELT meetings.
- Reporting any concerns regarding the teaching of the subject to the DT lead or a member of the SLT.
- Undertaking any training that is necessary to teach the subject effectively.

### **The National Curriculum**

At Cleves, we run a mastery curriculum however we use the national curriculum for Design and Technology as the basis for our curriculum planning. The curriculum aims to develop pupils understanding and application of design technology concepts through practical activities. This includes teaching them to identify problems and generate ideas, design and make prototypes, evaluate their products, and use tools and materials safely.

We focus on different aspects through food technology, materials, mechanisms, textiles, electronics and graphics. Children gain knowledge by designing and making products that solve real and relevant problems using their creativity and imagination. We encourage our pupil to have a passion and love of design to support them along their journey of becoming designers in an increasingly technological world.

The design and technology curriculum hones in on the four main aspects of the design process, as well as a focus on cooking and nutrition:

Design – generating, developing, modelling and communicating design ideas, using traditional and digital techniques

Make – selecting and using a range of materials, ingredients and equipment to perform practical tasks

Evaluate – exploring, investigating and analysing products; as well as a wider-world appreciation for key events and individuals in the field

Technical knowledge – essential understanding of systems such as electrical and mechanical

Cooking and nutrition – key principles in food such as healthy, balanced diets and seasonality

All curriculum areas are designed as a progressive model where pupils build on previous learning through their knowledge and application of clear and concise composite goals. Pupils know more and remember more through rehearsal, which leads to a deep and secure knowledge of the key components. At Cleves we strive to deliver exceptional lessons where all children are expected to meet the learning objective and achieve mastery. We recognise the fact that there are children of widely different abilities in all classes and we provide suitable pathways for all children to achieve the learning objective. These pathways include:

- Adaption
- Support
- Deepening Understanding
- Lowest 20% Toolkit

**Adaption:** is the altering or changing of the task so it is accessible for SEND children. The adaption of task should take into consideration the learning objective, stage of geographical learning the child is at and barriers to learning a child may encounter.

**Support:** Support is any resource which may assist a pupil in achieving the learning objective. This may take the form of assistance from an adult (teacher or teacher or teaching assistant), a modelled example of what is needed to succeed in the lesson or any other pictorial or concrete resource that can help the children achieve mastery.

**Deepening Understanding:** Children who have met the objective of the lesson can deepen their understanding of the component or composite goal by completing a task that encourages a child to apply or explain the knowledge and skills they have acquired.

**Lowest 20% toolkit:** These are strategies aimed at the lowest 20% children in your class. They are strategies to enable children working within the lowest 20% to access and meet the demands of our mastery curriculum. These strategies include; Live Modelling, Support or scaffold, varied questions, setting the 'Bigger Picture', key vocabulary, 1:1 support, 1:2 support and carefully planned independent learning time.

### **Foundation Stage**

We encourage the development of skills, knowledge and understanding that help EYFS children make sense of their world as an integral part of the school's work. As the Nursery and Reception class are a part of the Foundation Stage of the National Curriculum, we relate the development of the children's knowledge and understanding of the world to the objectives set out in the Early Learning Goals. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how

things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

### **Key Stage 1**

The aims of Design and Technology for key stage one are:

- Design: Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- Design: Design purposeful, functional, appealing products for themselves and other users based on design criteria.
- Make: Select from and use a range of tools and equipment to perform practical tasks.
- Make: Select from 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: Evaluate their ideas and products against design criteria.
- Technical Knowledge: Build structures, exploring how they can be made stronger, stiffer and more stable.
- Technical Knowledge: Explore and use mechanisms in their products.
- Cooking and Nutrition: Use the basic principles of a healthy and varied diet to prepare dishes.
- Cooking and Nutrition: Understand where food comes from.

### **Key Stage 2**

The aims of Design and Technology for key stage two 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.
- Design: 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.
- Make: 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 products.
- Evaluate: Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- Evaluate: Understand how key events and individuals in design and technology have helped shape the world.

- Technical Knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Technical Knowledge: Understand and use mechanical systems in their products.
- Technical Knowledge: Apply understanding of the curriculum, including artists.
- Cooking and Nutrition: Understand and apply the principles of a healthy and varied diet.
- Cooking and Nutrition: Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Cooking and Nutrition: Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

### **Assessment**

We assess the children's work in art and design whilst observing them working during lessons. Teachers record the progress made by children against the learning objectives for their lessons. At the end of a unit of work we make a judgement against the National Curriculum expected standards.

The art and design subject leader keep 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.

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
<b>Nursery</b>	To manipulate malleable materials to create a model (play dough owl)	To create models which express their ideas. (rocket)	To describe the texture, smell and taste of food items.
<b>Reception</b>	To explore using tools to create effects.	To manipulate material for a desired effect.	To create a beach scene picture. To combine textures.
<b>Year 1</b>	<u>Growing Greenhouses</u>	<u>Snappy Snacks</u>	<u>Pop-up Pictures</u>
<b>Year 2</b>	<u>School Sandwiches</u>	<u>Pretty Packaging</u>	<u>Perfect Puppets</u>
<b>Year 3</b>	<u>Simple Salads</u>	<u>Containers</u>	<u>Whizzing Wheels</u>
<b>Year 4</b>	<u>Pizza Parlour</u>	<u>Emergency Shelters</u>	<u>Building Bridges</u>
<b>Year 5</b>	<u>Musical Instruments</u>	<u>Baking Bread</u>	<u>Renewable Energy</u>
<b>Year 6</b>	<u>International Dishes</u>		<u>Fun Funfairs</u>