

Clockhouse Primary School

The Clockhouse Curriculum



Our Design Technology Curriculum Rationale

What do we want for our children and how will we work together to achieve this?

Our Design and Technology curriculum equips pupils with practical skills, critical thinking abilities and a deep understanding of the designed world. It encompasses key areas including structures, mechanisms, electrical systems, textiles, and food and nutrition. Children learn how things are made, why they are made, and the needs they serve, developing an appreciation for both everyday objects and pioneering innovations. Children explore a variety of materials, tools, and engineering techniques, enabling them to design and create purposeful, functional products. During Design and Technology lessons at Clockhouse, children are provided with knowledge and taught skills in order to design and make effective products successfully. Children research and investigate existing products, helping them understand real-world applications and informing their own innovative designs. In addition, Cooking and Nutrition is an integral part of our curriculum. It inspires a passion for healthy, nutritious food, deepens understanding of balanced diets, and promotes hygienic food preparation. Children explore diverse recipes and cooking methods, developing life-long practical skills. It also allows for the children to explore and experiment with a range of different recipes. Our curriculum enables children to achieve objectives in areas such as cooking and nutrition, textiles, carpentry, and engineering. Where appropriate, cross-curricular links are embedded with subjects including science, art, and mathematics. Importantly, the curriculum reflects the diverse families and local community of Clockhouse Primary School, ensuring learning is meaningful and inclusive.

What are we trying to achieve through the Clockhouse Design and Technology Curriculum? (*Intent*)

At Clockhouse Primary School, all we do is underpinned by our values. These values support our 'Key Curriculum Drivers'. Our drivers are used to ensure all stakeholders know what we want for our children – our intent:

- **Challenge** – Children are challenged to think critically about how products are designed and made, and how they can be improved. They investigate and respond to design briefs, developing unique, transferable skills through hands-on, purposeful tasks.
- **Global Citizenship** – Children explore how design and materials vary across cultures and how to create products suitable for a global audience. They consider sustainability, the needs of others, and environmental impact, fostering empathy and responsibility.
- **Creativity** – The Design and Technology curriculum encourages innovation. Children explore ideas and develop practical skills using a range of materials and tools. Cross-curricular links with subjects like art, maths, computing and science deepen understanding.
- **Aspiration** – At Clockhouse, children develop their aspirations by exploring how everyday products were created and imagining life without them. They learn that with hard work and creativity, they too can turn ideas into reality. Through stories of inspirational inventors who have changed lives worldwide, children see that anything is possible. The Design and Technology curriculum is accessible to all abilities and encourages collaboration, experimentation, and reflection. By testing their ideas and evaluating their successes, children build resilience, confidence, and a strong desire to achieve their goals—showing them there are no limits to what they can achieve.
- **Well-being** – At Clockhouse, our Design and Technology curriculum is designed so every child can succeed and excel, regardless of ability. We help children develop problem-solving skills and the ability to reflect on and evaluate their own work, as well as products used worldwide. By encouraging them to explore their own ideas and creativity, Design and Technology becomes a positive outlet that supports well-being and mental health. Through this, we aim to nurture thoughtful, curious, and analytical minds ready to contribute positively to the future of technology.
- **Cultural Capital** – Through the Design and Technology curriculum, we aim to prepare children for a successful life beyond Clockhouse Primary School. The curriculum nurtures creative thinking and encourages children to think outside the box, inspiring innovation in their designs. It exposes them to everyday products they use as well as remarkable engineering achievements from around the world that they might not otherwise encounter. By building a strong foundation of skills, knowledge, confidence, and awareness, we equip children to thrive as successful adults in modern Britain.

How is the Clockhouse Design and Technology Curriculum delivered? (*Implementation*)

- The Design and Technology curriculum at Clockhouse Primary School follows the National Curriculum and has been carefully sequenced and adapted by the subject leader to meet the needs of our children.
- All teachers and year group leaders are responsible for the medium-term planning which is cross-referenced with assessment documents and the long-term planning to ensure a broad coverage. Planning links to progression, age and phase.
- Lessons are differentiated and scaffolded to support all learners, ensuring challenge for every child.
- The subject leader regularly monitors teaching and learning to ensure National Curriculum standards are met, while fostering a love for Design and Technology through fun, memorable, and engaging lessons.
- Where possible and appropriate, the Design and Technology curriculum links to the school's golden threads weaved throughout the program of study. This is evident in Year 2 when the children explore healthy lifestyles and are tasked to design, make and evaluate a healthy pizza.
- The curriculum builds on children's prior knowledge and skills, with clear links to previous learning made explicit in each lesson. Each area of Design and Technology develops specific skills through focused tasks, helping to cement foundations for future learning.
- Children are given sufficient time and targeted teaching to develop the skills required in each unit, enabling them to be ambitious designers and confident, independent makers. This approach encourages children to create products that are unique and meaningful to them.
- Good quality materials, clear planning and a range of knowledge and skills of the Design and Technology lead ensures teaching staff have the confidence and equipment to design and create usable products.
- The bespoke curriculum gradually develops the necessary skills before introducing product design and making tasks. Children learn about existing products, considering how these can be adapted for new audiences.
- Through the planning process, children build up their knowledge of products already available and consider the adaptability of these products to meet a new audience.
- Children use a variety of subject specific tools, such as needles and thread, woodworking tools, computer-aided design software, and kitchen implements, which they may not be exposed to in their home lives.
- The curriculum allows the children to make adaptations to their designs allowing the children to become reflective learners, being able to identify key areas of development, and assess their product's purpose.
- Children then evaluate their product, identifying strengths and improvements that they would make based on how well the product works. Focused practical tasks are planned to develop and practise particular skills and acquire knowledge.
- Pupils evaluate their products based on the purpose and function, a process to encourage critical-thinking, problem solving and strategic thinking.

What difference is the Clockhouse Design and Technology Curriculum making? (*Impact*)

- From their different starting points, all children will make at least good progress and achieve their potential academically, emotionally, creatively, socially and physically. Their knowledge, understanding, and skills become well embedded, enabling high attainment.
- The children enjoy their Design and Technology lessons and show an interest in how products that we use everyday are made.
- Through the skills that are learnt during focused tasks, the children are able to build upon their prior learning and really embed their abilities.
- Cross-curricular links provide a deeper understanding of the importance of products and how skills from other subjects are used collaboratively.
- Children are able to show resilience through the design and make process, being able to improve their product based on their own evaluations.
- Understand and apply the principles of healthy eating, diets and recipes, including key processes, food groups and cooking equipment.
- Pupils gain confidence to explore creative possibilities, designing and making unique products that reflect their own ideas and abilities. This builds belief in their potential, showing them that with hard work, resilience, and the skills they acquire, their possibilities are limitless.