

Chambersbury Primary School - Design & Technology Skills Progression Map

National Curriculum Aims

Children should:

- Develop the creative, technical and practical expertise needed to perform everyday tasks and participate in an increasingly technological world.
- Design and make high-quality products for a range of users.
- Critique, evaluate and test their ideas and products.
- Understand and apply the principles of nutrition and learn how to cook.

Curriculum Strand	EYFS	KS1 (Years 1-2)	Lower KS2 (Years 3-4)	Upper KS2 (Years 5-6)
Design	Explore, create and adapt models through play. Talk about ideas and what they want to make.	Design purposeful products for themselves and others using drawings, labels and simple design criteria.	Research existing products. Develop design criteria and generate ideas through annotated sketches and simple prototypes.	Use research to develop innovative ideas for specific users. Produce detailed annotated designs considering function, aesthetics, sustainability and user needs.
Make	Safely explore materials, tools and techniques. Build and construct with increasing control.	Select appropriate materials and components. Measure, mark, cut, shape and join accurately using basic tools safely.	Select from a wider range of tools, equipment and materials. Measure accurately and work with increasing precision.	Demonstrate accuracy, independence and craftsmanship using appropriate tools, materials and techniques to produce quality outcomes.
Evaluate	Talk about what works well and suggest simple improvements.	Evaluate products against design criteria and existing products. Identify what could be improved.	Test products systematically. Evaluate effectiveness, function and appearance, explaining improvements.	Critically evaluate products throughout the design process, considering user feedback, purpose, innovation and impact.

Curriculum Strand	EYFS	KSI (Years 1-2)	Lower KS2 (Years 3-4)	Upper KS2 (Years 5-6)
Technical Knowledge	Explore how things work through investigation and construction.	Build structures and simple mechanisms. Understand how to strengthen, stiffen and stabilise products.	Apply knowledge of structures, mechanisms and simple electrical systems within design projects.	Apply understanding of mechanical systems, electrical systems, structures and digital technologies to solve increasingly complex design challenges.
Mechanisms & Electrical Systems	Investigate moving toys and simple cause and effect.	Create products using sliders, levers, wheels and axles.	Design and make products using levers, linkages, pneumatics and simple electrical circuits.	Use gears, pulleys, cams, motors, switches or programmable components where appropriate to create functional products.
Structures	Build models using a variety of construction materials.	Design and build stable freestanding structures.	Create shell and frame structures using appropriate reinforcement techniques.	Design strong, stable structures using knowledge of materials, forces and intended purpose.
Textiles	Join materials using glue, tape and simple threading.	Cut, shape and join fabric using templates and simple stitches.	Measure, cut and join textiles accurately using a range of stitches and finishing techniques.	Select suitable textiles and construction methods to create functional, high-quality products with decorative detail.
Food & Nutrition	Prepare simple foods safely. Explore healthy eating through practical experiences.	Understand where food comes from. Prepare healthy dishes using basic food preparation skills safely.	Understand seasonality and healthy eating. Prepare a wider range of dishes safely using appropriate techniques.	Prepare and cook predominantly savoury dishes. Apply knowledge of nutrition, hygiene, seasonality and food provenance confidently.
Working as Changemakers	Share ideas and resources through collaborative play.	Work together to solve simple design problems for	Collaborate to design products that meet the needs of users	Lead collaborative design projects that address real-world challenges.

Curriculum Strand	EYFS	KSI (Years 1-2)	Lower KS2 (Years 3-4)	Upper KS2 (Years 5-6)
(Chambersbury Vision)		familiar users. Listen to and value others' ideas.	and communities. Refine ideas through teamwork and feedback.	demonstrating empathy, sustainability, resilience and responsible innovation.

Expected Outcomes by the End of Year 6

Children will:

- Design purposeful and innovative products for real users.
- Apply technical knowledge confidently across all DT strands.
- Select and use tools, equipment and materials safely and accurately.
- Evaluate and improve products using testing, evidence and feedback.
- Work collaboratively to solve meaningful problems.
- Understand how designers, engineers and inventors improve lives.
- Recognise themselves as creative thinkers and changemakers who can make a positive difference through design.