

Meriden C of E Primary School - National Curriculum For Design Technology by Year Group



Foundation Stage	ELG They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.			Skills from 40-60 months (Development matters) Understands that different media can be combined to create new effects. • Manipulates materials to achieve a planned effect. • Constructs with a purpose in mind, using a variety of resources. • Uses simple tools and techniques competently and appropriately. • Selects appropriate resources and adapts work where necessary. • Selects tools and techniques needed to shape, assemble and join materials they are using.		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing	Generate ideas through discussion and simple drawings.	Generate ideas using labelled drawings and simple annotated sketches.	Explore different types of design drawings and design products for a purpose.	Design functional products using annotated sketches and templates.	Design products with increasing independence, considering user and purpose.	Create detailed design plans and prototypes for specific audiences and purposes.
Research & User Awareness	Talk about who products are for.	Design for a target audience and user needs.	Understand products are designed for a purpose and user.	Consider consumer and user needs in designs.	Respond to design briefs and client-style tasks.	Design products for clients/users with clear criteria and presentation.
Communicating Ideas	Use talking, drawing and templates to communicate ideas.	Use labelled drawings and simple annotations.	Use design drawings and prototypes.	Use annotated sketches and product pitches.	Create diagrams, labels and packaging designs.	Produce design portfolios, CAD-style sketches and presentations.
Planning	Follow simple steps to make a product.	Plan order of work with some independence.	Follow recipes and construction steps with guidance.	Plan improvements and refinements before making.	Work collaboratively to plan products and evaluate outcomes.	Independently plan, organise and adapt projects.
Using Tools Safely	Safely use scissors, glue and simple food preparation tools.	Use cutting, grating, spreading and joining tools with increasing control.	Safely prepare ingredients and assemble mechanisms using appropriate tools.	Use tools and equipment accurately and safely.	Select and use tools with precision and independence.	Demonstrate confident, safe and precise tool use across projects.
Measuring & Accuracy	Begin measuring and assembling materials.	Measure, cut and assemble materials more accurately.	Measure fabric and ingredients with support.	Weigh and combine ingredients accurately; use templates precisely.	Cut, measure and assemble accurately and independently.	Measure, scale and construct with precision and attention to detail.
Construction & Mechanisms	Create simple sliders, levers, wheels and axles.	Construct moving parts using pivots, sliders and axles confidently.	Assemble simple pneumatic systems and moving products.	Develop functional products using electrical systems and fastenings.	Design and test products using circuits and sensors.	Apply understanding of electrical and structural systems independently.
Structures	Build simple structures and explore stability.	Strengthen and refine simple structures.	Explore how mechanisms and materials affect products.	Construct stable products with accurate joining methods.	Build functional prototypes with greater durability.	Design reinforced frameworks and stable structures to scale.
Textiles	Join paper/fabric using	Combine textiles and	Use running stitch,	Use templates and	Use running stitch,	Select and apply textile

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	stapling, gluing or simple stitching.	paper/card effectively.	cross-stitch and appliqué techniques.	fastening techniques accurately.	blanket stitch and embellishment neatly.	techniques independently for function and aesthetics.
Food & Nutrition	Prepare simple healthy dishes and understand where food comes from.	Prepare healthy savoury dishes and understand balanced diets.	Understand seasonality and prepare dishes safely.	Adapt recipes for flavour, texture and presentation.	Plan and cook dishes collaboratively with awareness of nutrition and marketing.	Design menus and prepare dishes with presentation, nutrition and audience in mind.
Technical Knowledge	Understand basic mechanisms and movement.	Understand how mechanisms create movement in products.	Understand pneumatic systems and textile function.	Understand electrical systems and fastenings.	Understand sensors, inputs, outputs and technology links.	Understand circuits, conductors, structures and reinforcement.
Making & Assembly	Assemble simple products using basic materials and techniques.	Construct products accurately and test movement/function.	Build products combining materials and mechanisms.	Assemble products accurately using a range of techniques.	Build and refine prototypes for functionality and appearance.	Construct high-quality products with independence and precision.
Testing & Evaluating	Discuss what works well and what could improve.	Test products and adapt designs to improve function.	Test mechanisms and explain improvements.	Evaluate products for taste, function and suitability.	Evaluate products against design briefs and user needs.	Critically evaluate safety, performance and effectiveness using technical vocabulary.
Creativity & Innovation	Decorate and personalise products.	Design products for play, movement and appearance.	Develop imaginative products using mechanisms and textiles.	Improve and adapt designs for users and audiences.	Combine creativity with function, branding and technology.	Create innovative, purposeful and professional-quality outcomes.
Professional Practice & Reflection	Explore how designers, chefs and engineers create products. Reflect on strengths and improvements.	Reflect on how design choices affect movement and function.	Explain material and design choices and evaluate outcomes.	Present products as pitches/showcases with annotations.	Present projects to audiences or 'clients' using subject vocabulary.	Maintain design logs, present portfolios and reflect critically on process and outcomes.
Independence	Work with adult guidance.	Complete familiar tasks with increasing independence.	Begin applying skills independently in guided projects.	Make informed choices about tools, materials and techniques.	Work independently and collaboratively with confidence.	Demonstrate independence, resilience and professionalism throughout the design process.

