Our Design and Technology Curriculum

A parent's guide

Welcome to our guide on your child's journey through Design and Technology (DT)! 💡

DT is much more than just making things; it's a vital subject that equips children to be creative thinkers, problem-solvers, and innovators by applying practical skills to real-world challenges. From building structures to cooking healthy meals, your child is learning to design, make, and evaluate their work—essential skills for life.

To help you understand this progression, we've broken down the curriculum into two simple sections: a practical guide to what they make, and the "Big Ideas" they are learning.

This simplified summary highlights the main projects and Key Focus & Skills your child learns each year.

Early Years (Reception/Year 1)

What They Make	Key Focus & Skills
Simple Snacks	* Hygiene: Learning basic handwashing and food safety routines. * Simple Tools: Using tools like spoons and butter knives to assemble snacks.
Christmas Decorations	* Textiles: Learning about fabric and how to cut and join materials using glue and basic hand sewing.
A Floating Boat	* Stability: Understanding that a design needs to be stable and waterproof to float. * Testing: Learning to test their design and suggest simple improvements.

Key Stage 1 (Year 1/2)

What They Make	Key Focus & Skills
Fire Engine/Moving Model	* Mechanisms: Learning about simple mechanisms like wheels and axles to make a model move smoothly.
Healthy Snacks	* Food Prep: Developing basic food preparation skills (chopping, mixing) to safely create a healthy dish.
Pop-Up Card	* Paper Engineering: Exploring how to create simple moving parts like levers and sliders that make the card 'pop'.

Lower Key Stage 2 (Year 3 & 4)

What They Make	Key Focus & Skills
Volcano-Safe Building (Y3)	* Structures: Focusing on making a building strong and stable to withstand forces.
Moving Vehicle (Y4/Y6)	* Precision: Using measuring tools to ensure accurate cuts and joins. * Complex Movement: Building models with more intricate mechanisms.
Global Food Dishes	* Recipes: Safely using a wider range of kitchen tools and accurately following recipes from other cultures (e.g., Italian or Greek).
Textiles	* Hand Sewing: Improving hand sewing by learning stitches like the running stitch to join fabric neatly.

Upper Key Stage 2 (Year 5 & 6)

What They Make	Key Focus & Skills
Food: Budget & Plant-Based	* Sustainability: Learning about ethical food choices (local, Fairtrade) and planning healthy, sustainable, and budget-friendly meals.
Textiles: Purposeful Items	* Advanced Stitching: Using techniques like backstitch and applique to create strong, detailed, and functional products.
Circuit-Powered Model (Y6)	* Electrical Systems: The biggest challenge! Integrating electrical circuits (batteries, motors, lights) into a model to make it work.
Japanese-Inspired Design (Y6)	* Cultural Appreciation: Researching design principles from other cultures (like Japanese simplicity) and applying them to their own work.

DT Big Ideas for Parents

These are the core concepts and reasons why each year's learning matters.

Year R/1: Exploring Materials and Safety 🍎

- Material Properties: Children learn that different materials are best for different jobs (e.g., fabric for soft things, wood for strong things).
- Tool Safety & Hygiene: This learning is the first step toward practical independence by teaching safe use of tools and basic cleanliness.

Year 1/2: Movement and Mechanisms ⚙️

- How Things Work: Understanding simple mechanisms (wheels, levers) is the foundation for engineering and controlling how objects move.

- Following Instructions: Learning to follow simple plans and recipes accurately is crucial for getting the desired outcome in any project.

Year 3: Strength and Structure 🏗️

- Making Things Strong: Focusing on structures teaches children how to select materials and techniques to make models that are robust and stable for real-world purposes.
- Cultural Food: They explore how food is used in different cultures (e.g., Italy), connecting design to identity and tradition.

Year 4: Precision and Advanced Techniques ✂️

- Accuracy is Key: Using measuring and marking tools ensures that cuts and joins are precise, which directly leads to a stronger, better-looking final product.
- Advanced Joining: Moving beyond basic techniques to use stitches (like the running stitch) and more detailed paper mechanisms in their designs.

Year 5: Purpose and Sustainability 🌍

- Designing for a User: This teaches them to think beyond themselves and consider who the product is for and what problem it needs to solve.
- Ethical Food Choices: Learning about sustainability and Fairtrade helps them understand that food choices have a social and environmental impact beyond their immediate meal.

Year 6: Integration and Innovation 💡

- Powering Designs: Integrating electrical circuits is the highest level of complexity, showing how technology is used to bring a design to life (making it move or light up).
- Global Design Principles: Researching design from other cultures (like Japanese simplicity) broadens their view and fosters an appreciation for different design approaches worldwide.
- Problem-Solving: This year requires them to use all learned skills (measuring, cutting, joining, circuits) to successfully complete a complex, functional project.

<u>How you can help your child at home:</u>

- Flat-pack building (reading instructions, identifying parts)
- Budgeting for a meal or project
- Repairing or repurposing household items
- Visiting museums or shops to observe product design