HAREFIELD
Achievement through Active Learning

Design & Technology Curriculum Vision, Aims and Overview

At Harefield School, our Design & Technology curriculum aims to inspire creativity, innovation, and a passion for problem-solving in all students. We are committed to equipping our learners with the practical skills and critical thinking needed to thrive in a world shaped by technological advances, design innovation, and the evolving landscape of food technology. Through hands-on projects and real-world challenges, students will learn to design solutions that are functional, sustainable, and impactful. Our goal is to develop well-rounded individuals who can confidently embrace the roles of designers, engineers, culinary innovators, and creators of tomorrow.

Key Aims of Design & Technology at Harefield School:

- **Encourage creativity and innovation**: Develop students' ability to generate original ideas and think creatively in response to real-world challenges.
- **Foster problem-solving skills**: Equip students with the tools to identify, analyse, and solve practical problems through design and technology.
- **Promote sustainable thinking**: Instil an awareness of the environmental impact of design choices, encouraging students to create sustainable and responsible solutions.
- **Develop technical knowledge and practical skills**: Provide hands-on experience with a range of materials, tools, and technologies to build competence in both traditional and modern design methods.
- **Nurture teamwork and communication**: Cultivate collaboration and effective communication, preparing students to work successfully in diverse teams and express their design ideas confidently

	Year 7	Year 8	Year 9	Year 10 & 11 DT		Year 10 & 11 Food	
Autumn 1	**Desk Tidy - Timber** ● Categories & properties of Timber ● Timber joints & finishes ● Isometric drawings & template ● Health & safety ● Introduction to tools and equipments	**Mood Lamp - Polymers** ● Categories & properties of Polymers ● The design work of others ● Thermoforming techniques ● Jigs & Formers ● CAD & CAM	**Study Aid - Multi Materials** ● Multi Materials recap ● Target Audience Research ● Product Analysis ● Design Iteration ● Modelling & Prototyping ● Independent Manufacture	**Timber - Sources & Properties** **Design & Prototyping**	**NEA** **Electronics & Programmable components**	**Food Commodities** **Cooking with a Variety of Commodities**	**NEA** **Factors Affecting Food Choice** **Sensory Testing and Recipe Development**
Autumn 2				**Timber & sustainability** **Manufacturing Techniques**	**NEA** **Social Impact of Design & Making**	**Principles of Nutrition** **Healthy Meal Preparation**	**NEA**
Spring 1	**Mechanisms** ● Forces & Motion ● Mechanisms ● CAMS, Pulleys, Levers and Linkages ● CAM - 3D Printing	**Key Rings - Metals** ● Categories & properties of Metals ● Casting ● Packaging & nets	**Sustainable Living** ● Sources of Energy ● Sustainability ● CAD & Drawing types ● Modelling & Prototyping ● Papers & Boards	**Textiles, Paper & Boards** **Polymers & Metals**	**NEA** **Revision**	**Special Dietary Need** **Preparing for Special Diets**	**NEA** **Revision**
Spring 2				**Smart, Modern & Composite Materials** **New & Emerging Technologies**	**Revision**	**Food Science Fundamentals** **Science-Based Cooking Techniques**	**Revision**
Summer 1	**Healthy Eating & Nutrition** ● Carbohydrates, fats, proteins, vitamins and minerals	**Food Around the World** ● Food commodities ● Food provenance	**Teenage Diet** ● Energy calculations and RDI ● Planning healthy diets	**Energy** **Forces & Motion** **Mechanisms**		**Food Hygiene and Safety Principles** **Safe Food Handling in the Kitchen**	

Summer 2	● Food labelling ● Food preparation techniques ● 4Cs and Food Safety ● Sensory analysis	● Sustainability ● Adaptation of recipes ● Sauces	● Preparation and cooking techniques ● Developing recipes and meals ● Macro and Micro nutrients	**NEA Communication Techniques**		**Food Sourcing and Environmental Impact Cooking with Local and Sustainable Ingredients**	