

**Subject: KS3 Design and Technology**

Homework: Set on Satchel One every 2 weeks. Tasks will include designing, market research and retrieval quizzes.

Year group	Area	Curriculum Focus
7	Food 1	Students will be introduced to food technology, learning how to work safely and hygienically in the kitchen. They will explore personal hygiene, equipment safety and the 4Cs of food safety (cleaning, cooking, chilling and cross-contamination). Students will also learn about microorganisms, safe food storage and the importance of fruit and vegetables in a healthy diet, alongside practical dishes such as mini pizzas and fruit salad.
7	Food 2	Students will develop their understanding of healthy eating through the Eatwell Guide and the 8 dietary guidelines. They will learn about macronutrients and micronutrients, sugar consumption and diet-related illnesses. Practical lessons will include apple crumble and chicken nuggets, with a focus on safe food handling, recipe reading and developing independence in the kitchen.
7	Graphics 1	Students will be introduced to graphic design, learning about design elements, typography, logo design and colour theory. They will explore real-world branding through companies such as Netflix and Nike, developing sketching, rendering and idea-generation skills.
7	Graphics 2	Students will explore Pop Art and packaging design, learning how to analyse products, create mood boards, develop onomatopoeia artwork and design packaging nets. They will follow an iterative design process and manufacture a Pop Art-inspired popcorn package.
7	Design and Technology 1	Students will learn how to work safely in the workshop and begin designing a multifunctional Block Bot. They will explore design briefs, specifications, ACCESSFM analysis and thumbnail sketching before refining ideas and selecting materials.
7	Design and Technology 2	Students will manufacture their Block Bot, developing measuring, cutting, sanding and assembly skills. They will learn how to modify their work as it develops and evaluate their final product against the design specification.
8	Food 1	Students will revisit kitchen safety and hygiene before learning about microorganisms, food contamination and high-risk foods. They will explore macronutrients and micronutrients, understanding their functions and sources. Practical lessons such as flapjacks and calzone will help students develop confidence with equipment, preparation techniques and following recipes independently.
8	Food 2	Students will study dietary needs, allergies and intolerances, including gluten-free and dairy-free diets and Natasha's Law. They will explore food provenance, primary and secondary processing, and the environmental impact of food miles. Practical dishes such as macaroni cheese and chicken tikka will support skill development while reinforcing safe and hygienic working practices.
8	Biomimicry Architecture 1	Students will explore isometric drawing, biomimicry and architectural design. They will study the work of Zaha Hadid, analyse existing buildings and experiment with paper modelling to generate organic architectural forms.
8	Biomimicry Architecture 2	Students will develop CAD skills using Tinkercad to design biomimicry-inspired buildings. They will explore sustainable materials, create prototypes and refine their ideas through modelling and evaluation.

Year group	Term	Curriculum Focus
8	Design and Technology 1	Students will revisit workshop safety and begin designing a mobile phone holder. They will explore design briefs, specifications, ACCESSFM analysis and thumbnail sketching before refining ideas and selecting appropriate polymers.
8	Design and Technology 2	Students will manufacture their phone holder, learning how to measure, cut and safely bend acrylic. They will refine their work throughout the making process and evaluate their final product for quality and function.
9	Food 1	Students will deepen their understanding of food safety, learning about bacteria, food poisoning risks and the role of Environmental Health Officers. They will explore heat transfer methods—conduction, convection and radiation—and investigate the science behind cooking, including key processes such as caramelisation and coagulation. Practical dishes such as scones and pizza pinwheels will develop accuracy and independence.
9	Food 2	Students will explore food sustainability, food waste and global food poverty. They will learn about special diets, allergies, intolerances and nutritional needs across different life stages. Students will also examine how religion and culture influence food choice. Practical dishes such as cheesecake and burgers will allow students to apply their knowledge while refining their cooking skills.
9	Textiles 1	Students will explore sustainability in textiles, learning about natural and synthetic fibres, hand-sewing techniques and edge-finishing methods. They will plan an upcycling project and develop practical sewing skills including running stitch, backstitch and oversewing.
9	Textiles 2	Students will develop their upcycling project, learning how to construct, strengthen and decorate textile products. They will add embellishments such as appliqué or embroidery and evaluate their final product in relation to sustainability and waste reduction.
9	Design and Technology 1	Students will study the work of Charles Rennie Mackintosh and explore pewter casting. They will analyse existing jewellery, develop design ideas using ACCESSFM and create annotated sketches inspired by Art Nouveau motifs.
9	Design and Technology 2	Students will manufacture their pewter jewellery, learning how to create moulds, learn how to use the furnace safely, cast pewter and refine the finish through filing and polishing. They will assemble their final piece and evaluate its quality and craftsmanship.