

Design & Technology, Textiles and Cooking & Nutrition Curriculum (Years 7 - 9)

Overview of the Curriculum

In Key Stage 3, all students study Design & Technology, Textiles and Cooking and Nutrition on rotation.

In the **Design & Technology** specialisms we give students the skills and abilities to engage positively with the designed and made world to harness the benefits of technology. They learn how products and systems are manufactured, how to be innovative and to make creative use of a variety of resources including digital technologies to improve the world around them. Through a variety of creative and practical activities, students are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Students are taught to design, using research and exploration, such as the study of different cultures, to identify and understand user needs. Students develop and communicate design ideas using annotated sketches, detailed plans, 3D and mathematical modeling. Students are taught how to use specialist tools, techniques, processes, equipment and machinery safely and accurately, including computer aided manufacture. Schemes of work include the study of a diverse range of past and present professionals.

Through the **Textiles** curriculum in Key Stage 3 we aim to introduce students to the basic fundamentals of textile techniques and textile theory. Students learn about natural and synthetic fabrics and sustainable textiles. Through practical lessons, students learn how to safely and confidently use equipment, ranging from basic equipment such as scissors and a needle & thread, to using the irons and the sewing machines. Students explore various types of hand stitching, focussing on embroidery, before moving on to experimenting with the different stitching that can be created by the sewing machines. Within the Textiles curriculum students also experience fabric painting, basic applique using bondaweb, transfer printing, batik, tie dye, block print and sublimation printing. As the packaging of their textiles products is also important, students are introduced to and use photoshop to create eye-catching designs. As well as enjoying practical work, students research the work of established textile designers, taking inspiration to create their own design ideas.

In the **Cooking & Nutrition** curriculum students enjoy the experience of practical lessons, producing a range of recipes that build in complexity; students move from fruit salad to decorative bread making to sweet & sour chicken. After an introduction to the food room and health and safety protocols, we start Key Stage 3 with 'back to basic' style lessons; washing up and an introduction to basic kitchen equipment. As they move through the course, students learn a range of knife skills and learn to use equipment such as the hand blenders, oven and grill. Students are guided through teacher-led demonstrations. Alongside practical lessons, students study the theory behind cooking and nutrition.

Overview of schemes of work at each key stage

Design & Technology rotations	Textiles rotations	Cooking & Nutrition rotations
<p>Year 7 Proud to be me: Practical skills; marking out, pillar drill, tenon saw, disc sander Health & Safety CAD design OnShape CAD design Graphics in Photoshop Work of others.</p> <p>Year 8 Rotation 1 Interlock Vase: Card modelling, Iterative design, Design process, CAD design 2D Design, CAM Laser Cutter. Work of others.</p> <p>Year 8 Rotation 2 Book/Tablet Stand: Health & Safety Practical skills; marking out, pillar drill, disc sander, centre lathe, strip heater, CAD design OnShape, CAD design graphics in Photoshop. Work of others.</p> <p>Year 9 Rotation 1 Tiny Town: Card modelling, iterative design, design 1:50</p>	<p>Year 7 ‘Celebrations’ Keychain and Gift Box Students develop a moodboard and design ideas for a keychain and use photoshop design work for a gift box. They cut, make and sew a felt keychain and make the box.</p> <p>Year 8 Sweets and Treats Cushion Students create a cushion cover in 9 lessons, decorated with 3 samples of transfer prints, fabric painting and applique.</p> <p>Year 9 ‘Athlesiure’ Fashion Project Students create two research and presentation boards using designer and sustainability research. Students experiment with tie dye, batik and print and create fashion drawings. Students manipulate samples into 3d using pleat, gather and slashing techniques.</p>	<p>Year 7 In practical lessons students make:</p> <ul style="list-style-type: none"> ● Fruit salad ● Layered salad ● Fun sandwiches ● Soup, scones ● Fairy cake ● Stir fry <p>Through their practical lessons student will:</p> <ul style="list-style-type: none"> ● Know the rules of the classroom ● Be familiar with equipment and tools in the kitchen ● Know about washing up and hygiene. ● Understand when to use different chopping boards ● Use bridge and claw grip and other knife skills <p>Theory lessons in Year 7 cover:</p> <ul style="list-style-type: none"> ● Tastings and sensory evaluation ● Origin and methods of processing fruit and vegetables ● Eat well guide ● Food miles, fair trade and where food comes from ● Use of scales and weighing out activities

scale, architecture, cultural design. Work of others.

Year 9 Rotation 2

USB Desk Lamp:

Practical skills; CAD design OnShape, CAD design 2D Design, Health & Safety, Soldering, CAM Laser Cutting, Surface Finishes, Marking out, pillar drills, disc sanders. Levers, mechanical advantage. Work of others.

- Food safety and storage
- Cake making methods and function of ingredients
- Nutritional values in the daily diet
- Food labelling, packaging and investigation

Year 8

In practical lessons students make:

- Decorative bread
- Pasta bake
- Fruit crumble

Through their practical lessons student will:

- Use a great range of equipment and tools in the kitchen
- Develop their knife skills

Theory lessons in Year 8 cover:

- Bread making and the function of ingredients
- How bread is produced in a factory
- Vegetable classification
- How vegetables grow and how they can be prepared
- Types of sauces, sauce making and viscosity activity
- Meat preparation and storage
- Different types of meat and how they could be used in a recipe
- Heat transfer methods

		<p>Year 9 In practical lessons students make recipes from around the world:</p> <ul style="list-style-type: none">● Mexican guacamole● Italian pizza and spaghetti bolognese● British swiss roll● Chinese sweet and sour chicken● Indian curry <p>Through their practical lessons student will:</p> <ul style="list-style-type: none">● Develop a wider range of cooking and baking techniques● Learn increasingly specialist knife skills <p>Theory lessons in Year 9 cover:</p> <ul style="list-style-type: none">● Health hygiene and safety● Nutrients, food sources and function● Sensory analysis and perception● The function of ingredients, explored through a cake making experiment● Social moral and environmental issues in food production.
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