

## **Technology Curriculum Intent and Implementation**



### **Curriculum Intent**

Design and Technology encourages our students to learn to think and intervene creatively to solve problems both as individuals and as members of a team.

We encourage our children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts. We aim to make links to designs and designers throughout history, providing opportunities for our students to critically reflect upon and evaluate their designs.

We try, wherever possible, to link work to other disciplines such as mathematics, science, engineering, computing and art. This gives the learning purpose and relevance to the children.

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an interactive process of designing and making. When designing and making, we build all projects on the principles, design, make and evaluate to ensure our students understand the same design principles can be applied to any material or brief.

### **Department aims**

- To stimulate and maintain student's interest, enjoyment, curiosity and concerns about technological aspects that are all around them.
- To develop students' knowledge, understanding, skills, principles and vocabulary in Design and Technology.
- To teach a range of practical skills using a range of materials to aid our children's learning of the world and environment they are growing up in.

### Technology & food & cooking at key stage 3

Across the key stage our children will explore materials including fabric, wood, metal and acrylic. They will explore the principles of computer aided design and the value it has in today's world.

Topics they will study include the following on a carousel system.

#### *Which design is the most inspiring and iconic?*



### Year 7

#### **Our children will;**

Develop ideas to identify a final outcome for a wooden toy for children. Including prototyping using card. Then using a range of tools, equipment and machines safely and correctly to produce a high quality final outcome in wood.

Explore fabric and fibres and techniques to apply colour and texture to fabric. Design and re develop a simple paper pattern for an apron. Design and make an apron of their own design that reflects a selection of techniques. Made using both hand and machine sewing. They will be encouraged to consider cultures when producing their designs.

### Year 8

#### **Our children will;**

Consider the value and important of recycling and re using existing products to re design and make a bag of their choice. They will design their own pattern and select a variety of embellishment techniques all centred around the principle of re use.

Explore the principles of packaging and the merits of each packaging material. Develop a range of skills which include; hand drawing skills, computer skills, accuracy, dimensioning, scale, presentation, manipulating images, colour awareness, promotion, packaging, packaging nets. They will explore and learn the impact images, lettering and design can have on, a finished product. Investigate and use graphical CAD software to design their own packaging for a specific audience.



Complete two rotations in food technology. Developing a range of practical skills such as baking, frying, blending, use of ovens and hobs, chopping, peeling, cutting, weighing, measuring and safe use of knives. They will learn to critically analyse the products they have cooked and make suggestions for improvement. They will learn to use appropriate descriptive words for the dishes cooked and also carry out sensory evaluation of the dishes. They will cook a range of savoury dishes that fulfil the eat well guide recommendations. Improve practical cooking skills and gain independence when cooking. Embed core cooking skills and then explore how to modify and adapt simple dishes to fulfil the eat well guide principles.

### **Year 9**

#### **Our children will;**

Design and make packaging nets for a selection of products. Apply the principle of graphic design they have learnt to design and make attractive and modern designs for a variety of products. Explore the principle of point of sale boards and how they can influence a market.

Cook a range of technically challenging savoury dishes. Developing a range of practical skills such as cutting, chopping, peeling, kneading, rubbing in, sieving, white-sauce making, raw meat handling, use of biological raising agents in food, safe use of ovens and hobs, weighing and measuring.

Produce dishes of their own design that fulfil the eat well guide principles. Consider the needs of specific target groups and design products accordingly. Investigate the scientific properties of core ingredients and learn how to use them when cooking dishes. Identify what affects the usefulness of the ingredients.

### **GCSE EQUAS Food Preparation & Nutrition**

#### **Year 10**

##### **Term 1.**

Macronutrients & Micronutrients

##### **Term 2.**

Nutritional needs and Health

##### **Term 3.**

Cooking of Food and Heat Transfer, Functional and Chemical Properties of Food

##### **Term 4.**

Food Spoilage and contamination & Principles of Food Safety

##### **Term 5.**

Factors affecting Food Choices & British and International Cuisine

##### **Term 6.**

Sensory evaluation and Food Provenance

#### **Year 11**

##### **Term 1.**

Non Exam assessment – NEA 1

Scientific experiment based on exam board pre-released material.

Preparation for NEA 2 assessment.

##### **Term 2.**

Non Exam assessment - NEA 2

Planning and completing second task based on pre released material.



### Term 3.

Application of subject knowledge to exam questions in preparation for final exam.

### Termly themes

	<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<b>Seven</b>	Iconic Designers.	Most inspirational design.	Cultures from around the world.
<b>Eight</b>	Reduce , Reuse & Recycle	Sustainability and food miles	Most inspirational design.
<b>Nine</b>	Sustainability and food miles.	Modern materials and SMART ingredients.	Most inspirational design.
<b>GCSE Food Preparation</b>			
<b>Ten</b>	Diet & Nutrition	Cultures from around the world.	Special diets and food miles.
<b>Eleven</b>	Food safety and preservation.	Core commodities.	Healthy lifestyle and well-being.

### Extra-curricular and career opportunities

Our children have the opportunity to work with and enter a variety of Rotary competitions including young MasterChef. Our children are able to design and create products for sale at our school fayres in the autumn and summer terms. We offer field trips to local museums to broaden their experience with designs and products available.

All classrooms offer a continuous open door policy to allow them every opportunity to design and make, products of their own design. We work with a local independent school and share resources and offer the opportunity for shared learning. We invite local businesses and the local college to come and visit our school to offer talks and demonstrations to our children.

We nurture and support the development of a wide range of skills such as;  
problem solving, including designing creative solutions  
team building and collaboration  
independent time management  
personal organisation skills  
presenting work in different formats including the use of ICT

Our subject allows students to use all these skills in their further education and careers. Opportunities include working in the hospitality trade, food journalism and photography. Nutrition and dietetics is another increasingly popular option. Careers in architecture, furniture design or engineering are equally popular and natural progression options from our subject.