Subject Curriculum Overview

Subject: Design Technology /Textiles/ Cooking & Nutrition		Year Group: 9	TERMLY ROTATION
Topic	**Key Learning Points**	**Key Vocabulary**	**Assessments**
Rotation 'A' **DT**	**END POINT: Learn about architecture and structures to design and make a sustainable living model with lighting** **Architecture and Structures** Students will: • Know how to safely and correctly use equipment such as craft knives • Learn how structures are built to withstand forces such as tension, torsion and compression and recognise different structures • Be able to apply structural knowledge to design a bridge to withstand forces • Understand how levers and pulleys work in a structure and recognises structures that utilise these mechanisms • Learn about a range of architectural movements and architects including Bauhaus, brutalist, modern, Islamic Frank Lloyd Wright, Thomas Heatherwick and Zaha Hadid. • Learn how biomimicry can be used in architecture design to influence and develop designs • Learn on CAD how to design housing using Sketch up • Understand the importance of sustainability within architecture • Be able to design their own sustainable living project • Learn the importance of model making within design technology and understand how to make a scaled down product • Broaden knowledge of available materials including modelling materials • Be able to create an electrical circuit within model for lighting with an input, output and a power source • Be able to solder components to create a working circuit	Forces Inc. tension, torsion and compression, levers, pulleys, architectural movements Inc. classical, Islamic, Art Noveau, Art Deco, Bauhaus, Brutalist and Modern, Biomimicry. Foam board, Sustainable architecture, lighting circuits	Formative assessment, checking understanding & progress during each lesson. 'Forms' Summative assessment used half termly to assess understanding of key learning points.

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Rotation 'B' **Textiles**	**END POINT: Be able to effectively create fashion drawings, understand about the importance of promoting causes through textile banners, be able to create and make a 3D sewn kite using their own chosen surface decoration.** **Festival Textiles** Students will: • Be able to safely work within the textile room • Learn how to use a sewing machine to perform simple stitches and techniques • Learn how to use different types of hand equipment specific to the textiles room • Be able to research a range of festivals and the costumes or clothing that are typically worn • Learn how to create fashion drawings using a range of design techniques suitable for a festival • Learn about what is upcycling and why this is important in regards to increasing a products longevity • Demonstrate how to upcycle a product to meet a set brief • Learn about the evolution of textile products to reinforce a cause, such as miners' quilts and protest flags • Learn and demonstrate how how to print a range of surface decoration techniques such as block and foam printing, stencilling, lino ombre paint techniques • Learn a range of surface decoration dyeing techniques such as marbling and batik • Be able to create a 3D textile product of a festival kite • Learn to reflect, evaluate and develop, throughout the design and manufacturing process.	Body template, anthropometrics Mannequin, Festival, Embellishment, Batik, marbling, Foam board printing, Lino printing, Ombre Stencilling, protest art,	Formative assessment, checking understanding & progress during each lesson. 'Forms' Summative assessment used half termly to assess understanding of key learning points.

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Rotation 'C' **Food Preparation & Nutrition**	**END POINT: Will confidently and safely prepare and cook a range of food dishes focussing on hygiene, safety, different methods of cooking and dish finishing techniques** Students will: • Know what the term 'food sustainability' means. • Know what factors affect food sustainability. • Know the rules of making shortcrust pastry. • Know the three types of egg production systems in the UK. • Will know at least three freedoms from the animal welfare act. • Will understand the advantages and disadvantages for each egg production system. • Will understand the different types of food poisoning and how it may occur, including knowledge of 'pathogenic bacteria' and 'binary division.' • Know the four important temperatures and what they relate to in the kitchen. • Know the basic responsibilities of an Environmental Health Officer (EHO). • Understand what a risk in the kitchen is and know what the term 'due diligence' means. • Know and understand the term 'protein denaturation. • Have an understanding and overview of what the Hospitality and Catering industry is, who it serves and what the Main elements of it are • **Practical dishes cooked: Jam tarts, Apple jalousie (Rough puff pastry), Thai green curry, swiss roll, Chilli con carne, Set cheesecake, Hot and sour seafood broth, Oriental spiced meatballs, Gougeres (Choux pastry), Garlic flat bread, Stuffed chicken breast.**	Binary fission, campylobacter, coeliac, coagulation, contaminated, microbiological, pathogen, production, salmonella, sustainability Analysis, Diligence, denaturation, hydration, umami, characteristic, commercial, concentrated, diabetes, hospitality, lactose, residential, Proving, Kneading, Enriched, Aeration, ambient, beverage, canapes, conduction, convection	Formative assessment, checking understanding & progress during each lesson. Hand written summative assessment used termly to assess understanding of key learning points.

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How parents can support learning in the subject this academic year

- Support independent practical skills by practising recipes / encouraging cooking dinner.
- Support independent practical skills by helping with household DIY / using tools to manufacture ideas within the home.
- Practise using subject specific vocabulary in a sentence.
- Watch cooking, design and manufacturing programmes to encourage enthusiasm and motivation within these subjects.
- Acknowledge and discuss the benefits of these subjects within the wider careers industry, supporting future aspirations.
- Encourage excellent page presentation and explore / research during creative tasks.

Recommended Reading

- You Can Draw – Tom Gates with Liz Pichon
- 100 Things to Know About Inventions – Clive Gifford
- The Book of Inventions – Tim Cook
- Engineering for Teens – Dr Pamela McCauley
- KS3 Design & Technology Study Guide – CJP
- Foundations KS3 Food Technology – Oxford
- The Complete Cookbook for Young Chefs – America's Test Kitchen Kids

Points to note

This is the third year of the KS3 curriculum - Years 7,8 and 9study a different Technology specialism each term. There are approximately 12 weeks of study for DT, textiles and cooking & nutrition. We welcome students taking their products home with them at the end of the rotation, and food at the end of each practical lesson. Whilst we supply materials for DT and textiles we will ask for a voluntary contribution. Cooking ingredients should be purchased by yourselves, and will be uploaded to epraise a minimum of 2 days before they are needed in school.