

Roundwood Park School Curriculum Map – DESIGN AND TECHNOLOGY YEAR 8

A curriculum that stimulates curiosity, values diversity and offers challenge. We help every student to love learning for life, to follow their passions and to reach their full potential.

Year 8	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Work	On the Move		Cities in the Ocean	Skills, materials and processes.	The Eatwell Guide	
Key Knowledge Or Enquiry Question	Ihrough a project based on aerodynamics, students investigate forces and structures and learn about, Types of motion, Material properties and characteristics. Workshop safety is revises and maths is learnt through calculating surface areas and volumes, Calculating ratios in the scaling of drawings and models. Building on the year 7 SOL students use visualising and representing 2D and 3D forms including two dimensional representations of 3D object. They use the workshop to extend their skills on the different types of equipment and machinery through careful modelling		This unit of work encourages an understanding of global issues - population growth, climate change, rising sea levels. Students present information verbally, graphically and in written reports and use a range of curricular sources to gain information. This covers environmental and social issues - global warming, climate change, population growth and the. Suitability of materials.	This project focuses on material choices and their origins. It provides an understanding why computer aid design and computer aided manufacturing are so important to the design and manufacturing industry in today's world. It gives an insight into workshop practice and the opportunity to experiment with a range of tools and machinery. It also includes a number of manufacturing processes involving wood, metal and plastic. And highlights the importance of abiding to health and safety procedures.	This unit extend skills learnt in year 7 to encompass, pastry skills, knife skills, all in one method. Dough- kneading, proving, fermenting. How to stir fry. Prepare ingredients and equipment, testing food. Using the cooker/oven grill. Cooking methods, Combine, prepare and shape. Making sauces and doughs. Evaluating food through taste. The knowledge learnt focuses on; Food labels and energy needs. Carbohydrates and the science of bread making. Gelatinisation. Fibre and water in the diet. Dairy and calcium. The pastry processes. Fats. Aeration and folding. Students design their own pasta dish. They Look at chefs work and compare it to their own.	
Concepts	By the end of year 8 a design and technology student should build on the basic knowledge learnt in year 7 of the tools and equipment throughout D&T and begin to incorporate real life scenarios and problems into their designing. They will experience digital manufacturing and focus on the manufacturing processes used in industry. In food, they will build on their prior knowledge of bread to learn about pizza and pastry. They will understand the terms gelatinisation and aeration. They will use their prior knowledge of the Eatwell guide to expand and study the macronutrients including analysing recipes regarding their nutritional properties					
Key Vocabulary	Aeration, gelatinisation, carbohydrate, proving, kneading, bolognaise, nutrition, fajitas, fermentation, shortcrust, Iterative design, prototype modelling, aerodynamic, polymer, robustness, weight, rigidity, cylindrical, horizontal, stabilisers, winglets, stability, structure, composite material, user centred design, stakeholders, fuselage.					
ASPIRE Habits	Persevere, plan, organise, fo	ocus, think creatively	Make links, think logically, plan, organise.		Practise, focus, plan, organise.	
Reading Opportunities	A wide variety of texts are used during reading week, along with the books which are detailed through the super-curricular process					