Our Lady Queen of Peace

Catholic Engineering College

Curriculum Overview

Year 7 Technology

	Knowledge & Understanding				Subject Specific Literacy Development		Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	**Knowledge (Key Concepts)**	**Links to NC**	**Recall & Retrieval Practice Focus**	**Reading for Meaning**	**Key Vocabulary**	
Rotation 1 Product Design and Manufacture	**<u>Introduction product design and manufacture</u>** What are the foundation skills needed to be successful in product design and manufacture?	To know how to write a design specification using ACCESSFM To Know how to produce design ideas. To Know how to use workshop tools safely. To know the working properties of manufactured timber (Plywood)	Understanding of the design process, technical knowledge of the working properties timber,	<u>Every Lesson:</u> Recall activity linked to prior learning and key terminology. Think pair and share activities. Using mini white boards to check for understanding. <u>Mid-Point:</u> Low stakes Quiz based on cumulative knowledge and Key Piece based on key part of design process <u>End Point:</u> End of topic assessment 30 marks	Environmental impact of using timber.	Timber Environment Sustainability	Understanding the importance of biodiversity and the role insects play in ecosystems. Recognising sustainable sources of wood and the environmental impact of material choices Learning how small-scale projects like bug hotels contribute to global sustainability goals Makers Club STEM Club

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Rotation 2 Textiles and Fashion	**<u>Introduction to Textiles and Fashion</u>** What are the foundation skills needed to be successful in textiles and fashion?	To Know how to correctly annotate design ideas. To know how to create a working drawing To be able to create a pattern from a template. To know how to use a sewing machine safely.	Understanding the technical terminology of textiles and the working properties of fibres and threads	<u>Every Lesson:</u> Recall activity linked to prior learning and key terminology. Think pair and share activities. Using mini white boards to check for understanding. <u>Mid-Point:</u> Low stakes Quiz based on cumulative knowledge and Key Piece based on key part of design process <u>End Point:</u> End of topic assessment 30 marks	The Sewing Machine	Thread Applique Fibres	Understanding of Materials and Fabric Origins Learning where different fabrics come from (e.g. cotton, wool, synthetics) and how they are made. Awareness of how fabric production affects the environment and economy. Textiles Club
Rotation 3 Cooking and Nutrition	**<u>Introduction to cooking and nutrition</u>** What are the foundation skills needed to cook healthy and nutritious meals?	To know how to use the Eatwell guide to identify food groups. To be able to describe what a balanced diet is. To know how to use kitchen equipment safely. To be able to design a healthy and nutritious meal.	Becoming competent in a range of cooking techniques	<u>Every Lesson:</u> Recall activity linked to prior learning and key terminology. Think pair and share activities. Using mini white boards to check for understanding. <u>Mid-Point:</u> Low stakes Quiz based on cumulative knowledge and Key Piece based nutritious meal planning. <u>End Point:</u> End of topic assessment 30 marks	Why we use the Eatwell guide to prepare healthy and nutritious meals.	Healthy Nutrition Balanced	Understanding that the food industry is a global as well as local industry and impacts our day to day lives. Links to how the NHS looks after our health in terms of healthy meal choices. Catering Club

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Rotation 4 STEM	**<u>The impact of design on buildings and structures</u>** How do designers overcome problems to meet a brief?	To be able to identify design features in the work of others. To solve a design problem from a given brief. To formulate a test for a chosen design and evaluate based on the result of testing.	Using biomimicry to aid in the design process. Test a design and formulate an evidence-based evaluation.	<u>Every Lesson:</u> Recall activity linked to prior learning and key terminology. Think pair and share activities. Using mini white boards to check for understanding. <u>Mid-Point:</u> Low stakes Quiz based on cumulative knowledge and Key Piece based on key part of design process <u>End Point:</u> End of topic assessment 30 marks	Why we build structures and how they have evolved	Mass Structure Frame Structure Shell Structure Biomimicry	Understanding biomimicry and how nature plays a part in the way designers and engineers work. Makers Club STEM Club

Key Assessments

When	What will be assessed?	Why is this being assessed?
During Product Design and Manufacture rotation.	• Key Piece on generating design ideas. • Mid topic low stakes quiz on key terminology. • End of topic assessment.	• To check that students understand that they can make design choices within a chosen brief. • To check that students understand the language that is associated with Product Design and Manufacture. • To check that students have retained knowledge and can apply design choices to an alternative brief.
During Textiles and Fashion rotation	• Key Piece on final idea and working drawing. • Mid topic low stakes quiz on key terminology. • End of topic assessment.	• To check students, understand how their chosen idea should underpin their making process. • To check that students understand the language that is associated with Textiles and Fashion. • To check that students have retained knowledge and can apply design choices to an alternative brief.
During Cooking and Nutrition rotation	• Key Piece on balanced diets and nutrition. • Mid topic low stakes quiz on key terminology. • End of topic assessment.	• To check students, understand how nutritional choices can impact health. • To check that students understand the language that is associated with Cooking and Nutrition. • To check that students have retained knowledge and can apply nutritional choices to alternative menus.
During STEM rotation	• Key Piece on writing a design specification. • Mid topic low stakes quiz on key terminology. • End of topic assessment.	• To check students, understand how to produce a set of design criteria using ACCESSFM • To check that students understand the language that is associated with structural design. • To check that students have retained knowledge and can apply design skills to an alternative design problem.
Half Term 6	• Cumulative assessment on 4 different technology rotations	• from the four different areas of To check that students have retained knowledge technology.