Curriculum Summary Document

Year 8 – D & T

Terrific Trebuchets: Making Time for Design :Top-Notch Torches

Module/Unit of Learning	Taught During	What will students learn?	How does this help to build a broad and strong foundation?	Links to other Subjects
LC1 – Terrific Trebuchets	**Autumn One**	Students will be designing and carrying out a testing regime to find out how the specific set-up of a trebuchet arm affects factors such as its range and accuracy by varying the positions of the pivot, load and counterweight.	This creates a common D & T language and secures the core knowledge and practical skills needed for annotation, design, and construction work throughout Key Stage 3.	Maths – fractions and measurements Science – forces and mechanical systems English/Oracy – precise D & T vocabulary
	Autumn Two	In this topic, students will need to assemble a counterweight box and glue it with PVA glue. Also, measure, mark and drill holes for the counterweight box and pivot points. They then design and carry out testing to find the optimum settings to propel a projectile to a distant target zone.		Maths – fractions and measurements Science – forces and mechanical systems English/Oracy – precise D & T vocabulary
LC2 – Making Time for Design	**Spring One**	Students will learn about different design styles. They will then use that knowledge to design a clock. In D&T, this design will be drawn up using 2-D Design so it can then be realised using a laser cutting machine.	The unit broadens students' understanding of materials while transferring existing knowledge to a new design and production task.	Maths – fractions, angles, circle theory and measurements Art – Design and colour English/Oracy – precise D & T vocabulary
	Spring Two	Students will use CAD and CAM to construct a clock face/housing in accordance with their design brief. They will also assemble and add a mechanism to form a fully functioning product and then evaluate it.		Maths – fractions and measurements English/Oracy – precise D & T vocabulary

Module/Unit of Learning	Taught During	What will students learn?	How does this help to build a broad and strong foundation?	Links to other Subjects
LC3-Top-Notch Torches	**Summer One**	Students will build on their knowledge of electric circuits to design and a torch, selecting appropriate components and learning how to solder safely and effectively.	Students will continue to develop design, material and tools knowledge through the designing and making of a torch using soldering skills.	Maths – fractions and measurements Science – resistance, circuit symbols and electric circuits English/Oracy – precise D & T vocabulary
	Summer Two	Students will construct their design to make a working torch, ensuring that they incorporate ergonomics as well as aesthetics into their final product and then evaluate it.		Maths – fractions and measurements Science – resistance, circuit symbols and electric circuits English/Oracy – precise D & T vocabulary