Year 8- Design and Technology

Topic	Rationale	Knowledge acquisition	Task - Notes	Key vocabulary	Skills and enrichment
Design Development CAD Level 2	This topic gives students the opportunity to build on the skills and knowledge of CAD software used to create 3D virtual outcomes from level 1 in year 7 **Links to………** KS2. Possible use of CAD software to create designs (Personal use of games such as Minecraft) KS3. Use of CAD to develop outcomes for CAM. **Ladders towards….** An understanding of CAD used in the wider world and how designs can be quickly developed using CAD and iterations shown. Skill building in preparation for GCSE	To know that CAD is used to generate and develop design ideas, showing iteration. To know how to set up a drawing template correctly on Google-sketch up and create a drawing.	Recap…..What is CAD, where is it use? Why? Set up of google sketch up template in MM. Tool bars Scale 2D shapes Push pull Navigate Radius Chamfer Use pupil demos	CAD Scale 2D 2D Navigate Radius Chamfer	**Subject specific Skills.** • Idea creation & development • Graphical communication • ICT Skills **Numeracy** • Measuring in MM • Scale **Literacy** • Key vocab, meanings, and context • Comprehension of instructions for processes **Cultural Capital** • Big brands such as Apple and Dyson use of CAD **Links to National Curriculum Design:** • Use a variety of approaches to generate creative ideas. • develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools **Evaluate:** • Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.
		To know how to use more drawing features tools on Google sketch up to create features on a CAD design drawing.	Offset tool Follow me tool Rotate Moving along an axis Paint effects	Offset Follow me Rotate Axis	
		To know how to use all of the tools taught over the level 1&2 induction to produce a project drawing(Night Light)	Use all tools taught so far to create a final CAD drawing of a project (can do iterations)	Navigate Radius Chamfer Render Iteration Chamfer Radius Offset Follow me Rotate	