

KEVICC KS3 Curriculum: Design & Technology	Subject: Product Design CAD/CAM	Key terms and vocabulary.
Year: 7 Term: Various	Topic: Mobile Phone Stand, Eco Crabbing Lines/Ice Scrapers	<i>Which words will be explicitly taught & how frequently will understanding be checked? How will assimilation of new vocab be checked?</i>
What is the essential knowledge from this unit? What do students need to remember and understand? <ul style="list-style-type: none"> • Understanding of design techniques that allow the development of creative concepts through sketching modelling and reflection in an iterative manner. • Refine critical appraisal skills in relation to new design opportunities and existing product analysis. • Enrich design and manufacturing vocabulary that can be applied to a range of design contexts. (Use of ACCESS FM evaluation and notation structure). • Develop skills to present a wide range of creative design ideas using a number of techniques that have supporting notation. • Learn how to use 2D and 3D Computer Aided Design techniques to develop own personalised design solution. • Develop an understanding of the 6 R's of eco design. • Be able to develop and present sketched and modelled ideas at home that link to a set brief. • Design briefs focus on creation of mobile phone stand, eco-crabbing lines and ice scrapers. • Students will gain an inside into a range of materials including plywood, acrylics and PLA/PTEG. • Develop a knowledge of 3D printing and laser technologies. 		<i>Vocabulary regularly tested verbally in class and also tested at end of module unit test.</i> <i>Key Words.</i> Aesthetics Customer Cost Environmental Safety Scale/Size Function Materials Ergonomics Social and Moral Issues Inclusion CAD CAM Extrusion Fillet Trim Duplicate Array Dimensions Finger Joints PVA Solvent cement Ergonomics User Reduce Reuse Recycle Repair Refuse Rethink
What prior learning supports understanding of this content? Feeder primary school outreach work will have covered a range of techniques and experiences that help students to understand material properties and some techniques of making.	How does this content link to future learning? All research, analysis, design and making skills are directly transferrable to other D&T areas and curriculums. Content is linked to the Year 8 & 9 learning, GCSE and 'A' Level courses.	
Reading: Students are asked to investigate a range of sources and to evaluate the materials relevance, the designers thinking and to apply the ACCESS FM analysis and notation system. Students will also complete home learning assignments that require them to read from a range of sources.	Writing: Students are helped to evaluate and notate designs using help sheets based on the ACCESS FM system following discussions and questioning. Notes are made during the research, designing, development and evaluation stages of the project. Students will summarize home learning information in various presentations.	
Key assessments: <i>How will students review the information learned?</i> <i>How will feedback be seen?</i> Students will peer assess and self-evaluate ideas, skills and knowledge formally midway through the project. Staff will assess work on design research & design sheets, the practical itself and evaluation and sketched improvements. Peer assessment will also occur at design stages as part of the selection process.		