KEVICC KS3 Curriculum: Design & Technology	Subject: Product Design CAD/CAM	Key terms and vocabulary.
Year: 8 Term: Various	Topic: Chocolate product Development Brief.	*Which words will be explicitly taught & how frequently will understanding be checked? How will assimilation of new vocab be checked?* *Vocabulary regularly tested verbally in class and also tested at end of module unit test.* *Key Words.* *Aesthetics* *Customer* *Cost* *Environmental* *Safety* *Scale/Size* *Function* *Materials* *Ergonomics* *Social and Moral Issues* *Inclusion* *Feedback* *CAD* *CAM* *Extrusion* *Fillet* *Trim* *Duplicate* *Array* *Dimensions* Just in Time Lean Job production Batch Production Mass Production Cellular production Kanban QA/QC Thermoplastic

What is the essential knowledge from this unit? ***What do students need to remember and understand?***

- Understanding of design techniques that allow the development of creative concepts through sketching modelling and reflection in an iterative manner.
- Through practical, gain a full understanding of mould making and use in relation to vacuum forming.
- Enrich design and manufacturing vocabulary that can be applied to a range of design contexts. (Use of ACCESS FM evaluation and notation structure).
- Improve problem solving skills in evolution of chocolate products and brands through sketching, modelling, 2D CAD work, 2D laser printing and realisation.
- How to work collaboratively in a small team as real designers do.
- Gain an understanding of scales of production, manufacturing techniques, QC/QA, Kanban and JIT/Lean production.
- Through research assignments develop an awareness of smart and modern materials and design for inclusion.

What prior learning supports understanding of this content?	How does this content link to future learning?
The modular specialist product design units in CAD/CAM and workshop based challenges, provide a foundation of research, analysis, designing and making skills that underpin the work covered by this element of the curriculum.	All research, analysis, design and making skills are directly transferrable to other D&T areas and curriculums. Content is linked to both the Year 9 Product Design 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. Home learning tasks requires them to investigate smart materials, examples of scales of production and designing for inclusion.	**Writing:** Notes are made during the research, designing, development and evaluation stages of the project. Students also have to complete home learning assignments where they summarise collected information for presentation and revision.

Key assessments:

How will students review the information learned?
How will feedback be seen?

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.