Archbishop Beck Catholic College Recovery Long Term Plan for

Product Design Year 10

Students will engage in more aspects of practical study skills due to lack of time in workshops which were unavailable during the previous academic year. Year 9 students had no access to the specialist rooms for product design, which has had an impact on their practical skills set and knowledge of materials, techniques and processes and manufacturing skills. These are vital skills and knowledge that we need to embed to guarantee success at GCSE. Students therefore will be given the opportunity to do a mini project to embed the correct skills before beginning their NEA at the end of the year. We will begin with basic skills and tool use and then move onto experimenting with manufacturing processes. These tasks will accompany the corresponding theory areas covered in the week by week sequencing so students will build knowledge of the material area and the skills used when working with those materials. This will be ongoing over the school year, enabling us to establish the student's skills and knowledge before moving onto the NEA at the end of the year.

Autumn Half Term 1	Half Term 2	Key Vocabulary/Reading Opportunities
Topic Areas to be covered: New and emerging technologies. Design Strategies. Communication of design ideas. Energy generation and storage. Systems approach to designing. Mechanical Devices. Developments in new materials. Materials and their working properties. Explore different drawing/ designing techniques	**Topic Areas to be covered:** Materials and their working properties. Selection of Materials or components. Using and working with materials.. Communication of design ideas. Ecological and social footprint. Design Strategies. Communication of design ideas. Sources and Origins. Investigation, primary and secondary data. Communication of design ideas. Specialist techniques and processes. Materials management.	**Key Vocabulary:** Materials, Design, Energy Properties, Technologies, Footprint, Green issues, Investigation, Process. **Reading Opportunities:** looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work.

	Explore different drawing/ designing techniques	
Spring Half Term 3	**Half Term 4**	**Key Vocabulary/Reading Opportunities**
Topic Areas to be covered: Specialist techniques and processes. Material management Tolerances. Surface treatments and finishes. Forces and stresses. The work of others Explore different drawing/ designing techniques	**Topic Areas to be covered:** Design Strategies. Communication of design ideas. Investigation, primary and secondary data. Environmental, social and economic challenge. Prototype development Explore different drawing/ designing techniques	**Key Vocabulary:** Materials, Design, Energy Properties, Technologies, Footprint, Green issues, Investigation, Process, Tolerances, Finishes, Forces, Stresses, Prototype. **Reading Opportunities:** looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work.
Summer Half Term 5	**Half Term 6**	**Key Vocabulary/Reading Opportunities**
Topic Areas to be covered: Selection of Materials or components. Tolerances. Material Management. Specialist tools and equipment Specialist techniques and processes. Using and working with materials. Surface treatments and finishes.	**Topic Areas to be covered:** Specialist tools and equipment Using and working with materials. Specialist techniques and processes. Surface treatments and finishes. Scales of production. Explore different drawing/ designing techniques	**Key Vocabulary:** Materials, Design, Energy Properties, Technologies, Footprint, Green issues, Investigation, Process, Tolerances, Finishes, Forces, Stresses, Prototype, Scales of production. **Reading Opportunities:** looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work.

Explore different drawing/ designing techniques		

Year 10

Wider learning experiences to support this subject.	**Learning Characteristics instilled in the curriculum**	**Career Opportunities**
Visits to The World museum Liverpool V&A London The Design museum London Manchester Science Museum	**Confidence** Be able to use research to inform own design ideas Develop design ideas to inform a final decision successfully **Positive** Embrace the creative world around the students locally and national and if possible internationally Consider the diverse target markets that they need to design for. **Respectful** Consider a wide variety of cultures to assist research of themes	Designer, Architect, Work in the product design industry, Computer design, CAD CAM.

	Be environmentally considerate when working within the industry Ethical issue within all industries.	

Metacognition Methods applied in Teaching

Archbishop Beck Catholic College Recovery Long Term Plan for **Product Design**

Year 11

Students will engage in more aspects of practical study skills due to lack of time in workshops which were unavailable during the previous academic year. Year 10 students had limited access to the specialist rooms last year and were taught in an English room, this has had an impact on their practical skills set and knowledge of materials, techniques and processes and their manufacturing skills. Students needs will be assessed through verbal one to one tutorial to establish each individual student's coursework needs. Regular feedback will be given to enable individual support for the students coursework needs. Current guidance suggests that alterations are to be made to the grading of the NEA so this will be incorporated where applicable. The deadline for component will be Half Term 3.

Autumn Half Term 1	Half Term 2	Key Vocabulary/Reading Opportunities
Topic Areas to be covered: NEA Students to be given individual feedback and targets to help with work	**Topic Areas to be covered:** NEA Students to be given individual feedback and targets to help with work	**Key Vocabulary:** Assessment objectives, Sophisticated, Refined, develop, investigation, perceptive, rigorous, source, response, focused, coherent, consistency, review, purposeful, selection,

		Reading Opportunities: looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work/ sections of the NEA.
Spring Half Term 3	**Half Term 4**	**Key Vocabulary/Reading Opportunities**
Topic Areas to be covered: NEA and mock exams Students to be given individual feedback and targets to help with work	**Topic Areas to be covered:** Carry out any last minute refinement of NEA project before formal assessment an marking Revision of all theory areas covered previously	**Key Vocabulary:** Assessment objectives, Sophisticated, Refined, develop, investigation, perceptive, rigorous, source, response, focused, coherent, consistency, review, purposeful, selection, **Reading Opportunities:** looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work/ sections of the NEA. Reading of revision materials
Summer Half Term 5	**Half Term 6**	**Key Vocabulary/Reading Opportunities**
Topic Areas to be covered: Revision of all theory areas covered previously	Course complete	**Key Vocabulary:** Materials, Design, Energy Properties, Technologies, Footprint, Green issues, Investigation, Process, Tolerances, Finishes, Forces, Stresses, Prototype, Scales of production.

		Reading Opportunities: looking at the work of others and how they had been influenced. Researching of the highlighted sections/ units of work/ sections of the NEA. Reading of revision materials

Year 11

Wider learning experiences to support this subject.	**Learning Characteristics instilled in the curriculum**	**Career Opportunities**
Visits to: The World museum Liverpool V&A London The Design museum London Manchester Science Museum	**Confidence** Be able to use research to inform own design ideas Develop design ideas to inform a final decision successfully **Positive** Embrace the creative world around the students locally and national and if possible internationally Consider the diverse target markets that they need to design for. **Respectful** Consider a wide variety of cultures to assist research of themes Be environmentally considerate when working within the industry Ethical issue within all industries	Designer, Architect, Work in the product design industry, Computer design, CAD CAM.

Metacognition Methods applied in Teaching