Y11 - 10 Week Plan

Subject	**Design and Technology (Engineering) 11EG/D1 CBA**
Paper	Engineering Design Specification Cambridge National OCR Level 1/Level 2 J822
Work/skills/activities being covered in lesson leading to exams	• Week 1 NEA Completion. • Week 2 NEA Completion. • Week 3 NEA Completion. • Week 4 NEA Completion. • Week 5 NEA Completion. • Week 6. TA1.1: The stages involved in design strategies. Exam style questioning • Week 7 TA1.2.1: Stages of the iterative design process: Design . • Week 8 TA1.2.2: Stages of the iterative design process: Make • Week 9 Mock exam-Peer assessed and high mark questions deconstructed. • Week 10 Exam style questions focused on filling knowledge gaps Remaining time personalised targeted intervention for attending pupils.
Areas to revise as a priority leading to exams	TA1.1 • Linear design • Iterative design • Inclusive design • User-centred design • Sustainable design • Ergonomic design. • Analysis of the design brief Methods of researching the product requirements § types of information obtained from primary research § types of information obtained from secondary research § market research to determine existing products § interviews with potential users and focus groups § use of tables of anthropometric data

§ analysis of existing products using:
o ACCESS FM (Aesthetics, Cost, Customer, Environment, Size, Safety, Function, Materials and Manufacturing)
o product disassembly

- Production of an engineering design specification
- Generation of design ideas by sketching and modelling.
- The reasons for the use of modelling
  - § to test proportions
  - § to test scale
  - § to test function
- Virtual modelling of the design idea
- Physical modelling of the design idea
- Manufacture or modification of the prototype
  § comparison of the model or prototype against the requirements of the design brief and specification.
- Reasons for the product criteria included in the design specification (ACCESS FM):
  § Aesthetics
  § Cost
  § Customer
  § Environment
  § Size
  § Safety
  § Function
  § Material
  § Manufacturing.
- Scale of manufacture:
  § one-off
  § batch
  § mass
- Material availability and form
- Types of manufacturing processes:
  § wasting
  § shaping
  § forming
  § joining
  § finishing
  § assembly

- Production costs
  § labour
  § capital cost
- Types of drawing used in engineering

Suggested methods of revision	• DT Core technical principles using the BBC Bitesize website for the AQA specification. • Use theory folder that has been created specifically for revision of knowledge • BBC Bitesize – • https://www.bbc.co.uk/bitesize/examspecs/zby2bdm • for quizzes, past papers and knowledge summaries.