

OCR Exam help sheet

Topic 1: Materials

Revise the different categories of engineering materials and list a range of materials for each category. This could be done as a materials tree (see google images).

Topic 2: Properties of materials

Revise the different types of material properties and their characteristics and understand their uses in relation to the materials, i.e. Reason for selecting a material for an application.

Topic 3: Manufacturing processes

Research stages in manufacturing a given product (in this case bench fitting task- removing a section of material from a block) this needs to be simplified into 5 stages from start to finish and include the hand tools used. You will also need to look at types of surface finishes that could be applied. You will need to look into methods of mass producing products.

Topic 4: Manufacturing processes cont.

You will need to look into methods of upscaling products and how this can be done simply and safely.

Topic 5: CNC machines & techniques

You will need to research different types of CNC machines and their advantages and disadvantages and the impact they have on the company.

Topic 6: Modern technologies

You will need to revise different types of modern technologies and how they are implemented in a manufacturing company. How do they help the company?