



### PPE1 Topic Lists for Revision

**Subject: Engineering Design**

**Topic or component: R038: Principles of Engineering Design**

Use the PDF in class charts.

Topics to cover:

Research methods

Standards and their symbols

ACCESSFM

Drawing features

Quantitative and qualitative data

Machine tools

Design processes

Scales of production

Fusion 360 functions

Metal manufacturing processes

Ergonomics and anthropometrics

Design requirements

Designing for disassembly

New and emerging materials

Designing to consider the environment and sustainability

Technology push and market pull

Standard components

Critical dimensions of mechanical assemblies

Orthographic drawing

Isometric drawing

Sand casting

Personal protective equipment (PPE)

Hazards and risks

PPE and hazard symbols

Injection moulding

Tolerance

### **Strategies and Resources for Revision:**

Use the PDF on class charts and make flash cards, try the revision questions etc.

Attend NEA/revision sessions on Thursday (T4) after school.

Use textbooks and endorsed resources (see link below)

<https://www.ocr.org.uk/qualifications/cambridge-nationals/engineering-design-level-1-2-j822/textbooks/>