

# **Year 12 and 13 Exam Revision**

## **Product Design**

Risk Assessment - 5 steps

ERGONOMICS / ANTHROPOMETRICS

FINISHING TECHNIQUES - Usually material related to function

Unit / One off, Batch, Mass production

Registered design, Patent Office

Early Stages of Design - 3D Modeling, Prototypes, Card etc

Computer interfaces CAD

Uses of Internet- Advantages, Disadvantages.

Lean production "Just in Time"

Properties of materials-importance to the designer.

Gantt and critical path analysis-two systems of project management.

Design Process-normally asked to design one but need 3 below

Graphic communication techniques-describe tree reasons

Quality/ Quantitative control, assurance.

Recycling-environmental issues-Social moral issues.

Smart Materials- Important Topic.

CAD Advantages / Disadvantages

Man made materials e.g. MDF where applied

Line Assembly/Production Cells

Design related issues you will need to look at past papers to get the feel of the 22 mark questions- Current Issues

Design Process inversion-Disassembly-Morphological Analysis.

Analogy, Lateral thinking, Thought showering,

Joining materials.

Sustainable materials and related topics.

Marketing and related topics e.g. "The Four P's".

Designers, entrepreneurs and Product champions.

Design influences e.g. Memphis, Habitat, and IKEA.