YEAR 12 – BRIDGING UNITS

A-LEVEL DESIGN AND TECHNOLOGY

ST HILDA'S COLLEGE

The 6th Form
@ St Hilda's

BRIDGING UNITS

Name:

Anything is POSSIBLE

Welcome to D&T

Setting yourself up for success

To ensure you make a smooth start to A-level D&T, you need to ensure you have a solid understanding of key components. The following tasks have been designed to do just this. Please complete both, print and bring in the required evidence to your first timetabled D&T lesson.

Task 1: Health & Safety

Study the following Health and Safety Legislation/Standards /Guidance and create a <u>powerpoint</u> which gives a detailed overview of each piece of legislation.

- 1974 Health and Safety at Work Act
- 1987 Consumer Rights Act
- 1968 Trade Descriptions Act
- 1988 Lion Mark (BTHA)
- 1901 British Standards (BSI/Kitemark)
- CE (Certifique Europeene)
- 2002 COSHH
- Personal Protective Clothing Regulations 2002
- RIDDOR 2013
- Risk Assessment (and the five stages of RA)

You should consider who is protected by the above Safety Legislation/Standards /Guidance, how they are protected and the importance of each.

Task 2: Research a material

Choose ONE of the following tasks to complete, and record your findings in <u>powerpoint</u>:

1.**Timbers** Students should research and define the performance characteristics of woods, including: • grain pattern • grain direction • surface defects • warpage • shrinkage • splitting • joining • forming • steam bending • laminating • machining qualities • resistance to decay • moisture resistance • toxicity	**2. Metals** Students should research and define the performance characteristics of metals, including: • hardness • toughness • malleability • elasticity • tensile strength • density • resistance to corrosion • thermal conductivity • electrical conductivity • melting points • ability to be alloyed • ability to be joined with heat processes • ability to take applied coatings and finishes.
3.Polymers Students should research and define the performance characteristics of polymers, including: • toughness • elasticity • insulation (thermal and electrical) • UV resistance • ability to be moulded • resistance to chemicals and liquids • melting points • suitability for food packaging applications • biodegradability • recyclability • self finishing • ability to be combined with other polymers and/or additives..	**4.Papers and Boards** Students should research and explain why different papers and boards are suitable for different applications, including: • bleed proof paper: marker rendering • treated paper: photographic printing • watercolour paper: painting • bleached card: greeting cards and high quality packaging • mount board: modelling • duplex card: food packaging • metal effect card: gift packaging • moulded paper pulp: eco-friendly packaging