

Resistant Materials

Name:

Revision Factsheet

Ensure your knowledge is good about the following topics, if not then research and revise them prior to the mock exam:

Hardwoods/softwoods/man made boards-differences with each

Ferrous and Non Ferrous metals-what are the differences between these metals

Types of **plastics**: *ABS, Polypropylene, polystyrene, nylon and acrylic*

Finishes for **metal**: powder coating, spray paint, galvanising

Finishes for **wood**: wax, varnish, paint and stain

Wood working tools=

Metal working tools=

Tools used to shape/cut and form plastics (remember the **strip heater**)

Find out the definitions for **aesthetics, ergonomics and anthropometrics =**

Research the 6R's of sustainability—**Reuse, Refuse, Rethink, Recycle, Repair and Reduce**

CNC = Computer Numerically Controlled -a piece of equipment that is controlled by a computer for example a CNC milling machine.

Vinyl Cutter = how is it used, what are its advantages, when is it used =

How does **vacuum forming** work? What is it used for=

How can **acrylic** be joined together– remember **acrylic cement**

What is globalisation = (research this)

Permanent joining methods, **brazing/soldering/welding** –find out the advantages/disadvantages of each =

What is a **carbon footprint**=

Kite mark



what does this mean=

Smart materials, e.g. **polymorph** a plastic than can reformed/moulded with the addition of hot water

Thermosoftening plastics: (find out the meaning)=

Thermosetting plastics:(find out the meaning)=

What does **biodegradable** mean=

= if you see an equals sign, FIND THE ANSWER OUT FOR HOMEWORK

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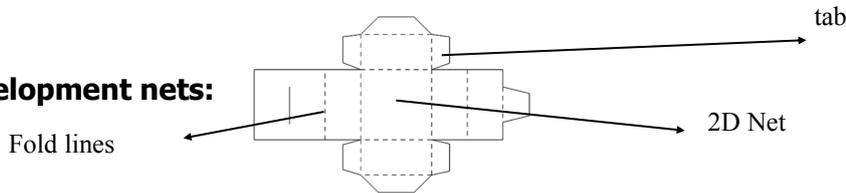
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Revision Factsheet

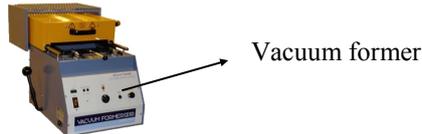
Ensure your knowledge is good about the following topics, if not then research and revise them prior to the mock exam:

Development nets:



Graphic equipment/tools: craft knife/guillotine

Specialist equipment: die cutter/ vinyl cutter



Graphic materials: foam board/card/mounting board /Styrofoam/ corriflute

Types of **plastics:** *ABS, Polypropylene, polystyrene, nylon and acrylic*

Tools used to shape/cut and form plastics (remember the **strip heater**)

Find out the definitions for **aesthetics, ergonomics and anthropometrics =**

Research the 6R's of sustainability—**Reuse, Refuse, Rethink, Recycle, Repair and Reduce**

CNC = Computer Numerically Controlled -a piece of equipment that is controlled by a computer for example a CNC milling machine/vinyl cutter

Vinyl Cutter = how is it used, what are its advantages, when is it used =

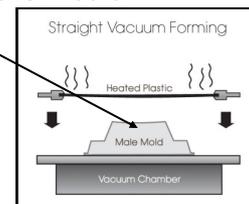


How does **vacuum forming** work? What is it used for=

Vacuum forming mould :



tapered sides for the mould



Kite mark



what does this mean=

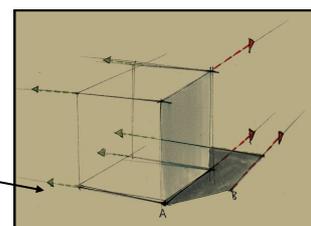
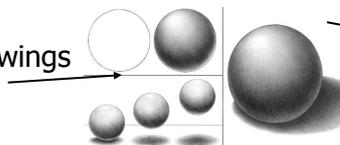
Smart materials, e.g. **polymorph** a plastic that can be reformed/moulded with the addition of hot water. **Thermo-chromic inks** are an example of a smart material how do they work=

Thermosoftening plastics: (find out the meaning)=

Thermosetting plastics: (find out the meaning)=

What does **biodegradable** mean=

How to add shadows to drawings



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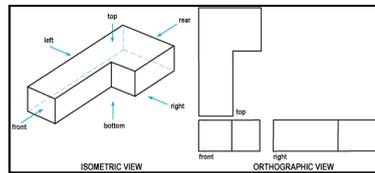
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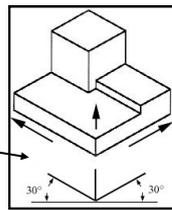
Development models/scale model: advantages of making models?



Orthographic drawing views:



Isometric drawing views:
Drawing at 30 degrees



What do these **symbols** mean:

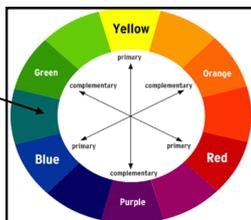


What is a prototype : *A prototype is an early sample, model or release of a product built to test a concept.*

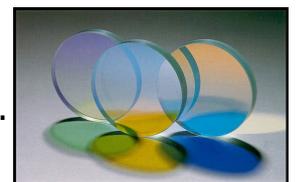
CAD = Computer aided design (pro-desktop)

CAM = Computer aided manufacture (e.g. vinyl cutter)

Colour wheel:



Translucent: a material allowing light, but not detailed shapes, to pass through.



Bitmap: A **bitmap** is a type of graphic composed of pixels (*picture element*) in a grid. Each pixel or "bit" contains colour information for the image.



Anthropometric data: measurements and sizes of the human body. This data helps designers to design products to fit the user comfortably.



= if you see an equals sign, FIND THE ANSWER OUT FOR HOMEWORK

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