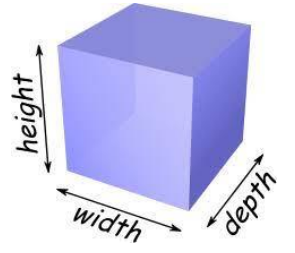


Year 10 Art and Design

Producing designs

- Rendering - To apply colour and shade to a design.
- Free hand sketching - This is quick method of producing a design using only pens/pencils.
- 3D - Three dimensional - The design will have 3 sides (measurements) including the Height, Width and Depth.



Plastics

- **PLASTICS** are also known as **POLYMERS**.
- Plastics are **MAN MADE**
- There are **TWO** main types of plastic **THERMO PLASTIC** and **THERMOSETTING** plastic.



What are the two main types of plastic?
Can you name at least one of each and give an example of a product that is made from it?

THERMO PLASTICS:

- Can be **RE MELTED** and **REFORMED** and are also **RECYCLABLE**.

Polyethylene Terephthalate (PET)

Drinks bottles and packaging.



High-Impact Polystyrene (HIPS)

(Our crazy car) Food packaging.

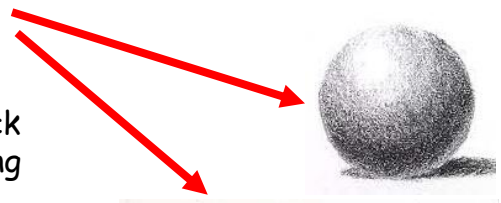


Glass reinforced plastic (GRP)

Boats and car panels



Phenol Formaldehyde (PF) - Electrical fittings and saucepan/frying pan handles.



PENCIL



MARKERS



What could you use to **RENDER** a design?
What are the 3 **SIDES** (measurements) of a 3D shape?



What is **CAD/CAM**?
What are the main advantages of **CAD/CAM**?



CAD

- Computer Aided Design
- CAD allows users to draw and design products using specialist software.
- It allows changes to be made quickly and easily.
- We use 2D Design software.

CAM

- Computer Aided Manufacture
- CAM uses Computer Numerical Control (CNC) to produce CAD designs.
- It produces good quality prototypes quickly and accurately.
- Laser cutters, 3d printers are examples of CAM.