



Spellings

1. Acrylic
2. Plywood
3. Aluminium
4. Coping Saw
5. Design
6. Specification
7. Analysis
8. Symmetrical
9. Unique
10. Ductility

Thermoplastics

Thermoplastics are plastics that can be heated and moulded, but when heated again will remember its original shape and can be moulded into a new shape.

Thermosetting plastics

A Thermosetting plastic can also be heated and moulded, but once this has happened, it changes its molecular composition and cannot be moulded again.

Material Properties

Properties of Plywood

- Plywoods have high strength and stability.
- Plywoods do not show any swelling, shrinking, and warping.
- Plywoods have high resistance to impact.



Properties of Acrylic

- Durable (long lasting)
- Available in many colours
- Scratches easily
- Brittle

Properties of Aluminium

- Lightweight
- Ductility – this means the metal is soft and easy to work with.
- Resistance to corrosion



Prototype – What is a prototype?

A prototype is a first model of a design that can be tested to identify its strengths and weaknesses.



Coping saw

Can cut wood, metal and plastic. Used primarily for cutting intricate curved lines.



Hack saw

Used for cutting metal. Cuts generally in straight lines but could cut large curves.



Tenon saw

Used for cutting wood only. Designed to cut straight lines.



Rip saw

Used for cutting large pieces of wood in straight lines.

Metals (Ferrous and Non-Ferrous)

Ferrous – This means the metal contains Iron which makes it magnetic, but also susceptible to rust. These metals are generally heavy and strong.

Examples of these metals are – Stainless Steel, Mild Steel, and Cast Iron.

Non-Ferrous – This means the metal does not contain Iron, and therefore not magnetic or susceptible to rust – These metals are usually more lightweight and malleable.

Examples of these metals are – Aluminium, Silver, Copper, Lead and Zinc to name but a few.

Joining methods



Pop rivets

These are used to permanently fasten sheet materials together.



Welding

Welding is a permanent process that joins materials, usually metals or thermoplastics, by using high heat to melt the parts together and allowing them to cool causing fusion. **Soldering** is a similar process to this, except it uses lower temperatures and is used for joining very small components.



Nuts and Bolts

These are designed to be a temporary fixing, enabling parts to be easily replaced.



Glue

Glue is designed to permanently fix materials together. However, you may need a specific glue depending on the material.



Plywood

Plywood is a material manufactured from thin layers or "plies" of wood veneer that are glued together (**laminated**) with adjacent layers having their wood grain rotated up to 90 degrees to one another. This gives the wood extra strength and prevents the wood from warping when exposed to moisture.



Memphis

Memphis is a **design movement** that began in 1981. While the name might make you think that it was born in Tennessee, it got its start in Milan, Italy. Designer Ettore Sottsass founded the Memphis Group with other designers and architects.



Keywords

Colourful
Quirky
Fun
Distinctive
Patterns

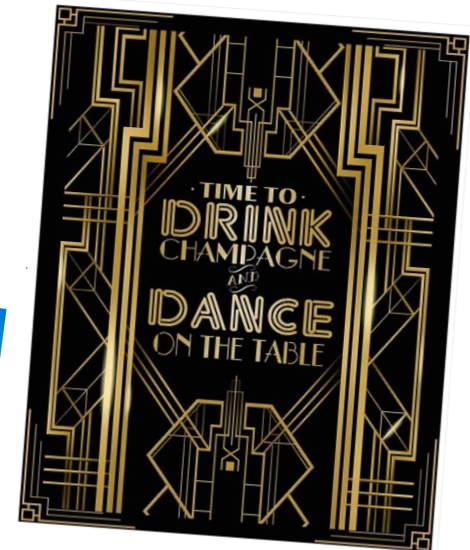


ART DECO

Art Deco, sometimes referred to as **Deco**, is a style of visual arts, architecture and design that first appeared in France just before World War 1. Art Deco influenced the design of buildings, furniture, jewellery, fashion, cars, movie theatres, trains, ocean liners, and everyday objects such as radios and vacuum cleaners.

Keywords

Unique
Symmetrical
Angular
Pastel





Cubism

Cubism is an early-20th-century art movement that revolutionised European painting and sculpture, and was inspired by music, literature and architecture. In Cubist artwork, objects are analysed, broken up and reassembled in an abstracted form—instead of depicting objects from a single viewpoint, the artist depicts the subject from a multitude of viewpoints

Keywords

Angular

Muted

colours

Abstract

