

Key spellings

- Material
- Straight
- Design
- Safety
- Goggles
- Recycled
- Colour
- Favourite
- Instructions
- Equipment
- Hole
- Apron
- Curved
- Technology
- Template

Year 8 Design & Technology

Natural wood - From trees!

Soft wood- These are **CONIFEROUS** they usually have needles instead of leaves and produce cones.

Pine



The base of your mechanical toy is made from pine.

These woods are usually cheaper, and used for simple furniture as well as timber for building.

Hard wood- These are **DECIDUOUS** they usually have broad, flat leaves that change colour in the autumn.

Oak



These woods are usually more expensive and used for decorative furniture.

Designers can help reduce the environmental impact by:

Using Forest Stewardship Council (FSC) certified materials which are sourced from sustainably managed forests.

Use soft woods which take less time to regrow than hardwoods.



What environmental considerations do designers have to think about?

Woods

These are boards that are made from fibres /sheets of wood bonded together with adhesives (glue).

Medium-density fibre board (MDF)

This is made from wood fibres that are compressed (squashed) together with resin (glue) in to a sheet.



The decoration on your mechanical toy is made from MDF.

Plywood

This is made from layers of wood (veneers) that are glued together at 90 degree angles.



These types of wood are usually used to make flat-pack furniture (This is furniture that comes boxed and you put together yourself) as it is cheap and easy to work with.



Can you spell these words and put them in a sentence?



What is the difference between natural wood and manmade board? Can you give examples of each?

Environmental considerations

Deforestation - This is the clearing of rainforests and wooded areas when trees are cut down. This can result in:

- The loss of homes for animals
- Global warming as trees remove CO2 from the atmosphere.
- The burning of wood and emissions from vehicles that transport the timber also cause CO2 emissions.

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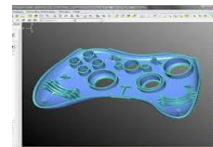
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What environmental considerations do designers have to think about?

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.



What is CAD/CAM?

What are the main advantages of CAD/CAM?