

Year 8 Resistant Materials: Acrylic Clock

By the end of this project you will have:

- Completed a **Product Analysis** on existing acrylic clocks.
- Explored your ideas through a series of sketch **designs**.
- Drawn and labelled a final **design**, with an **end user** in mind.
- Written a **Design Specification** for your clock.
- Measured, cut and sanded your **acrylic**, using a range of equipment.
- Constructed your final **structure** for your clock, attaching the pieces together.
- Completed a series of **evaluations** throughout the project.

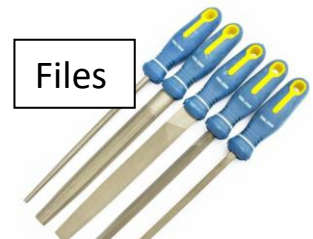


Practical skills you will use:

- Creating a **paper template** as a pattern.
- Cutting the **acrylic** with a **fretsaw**.
- Sanding using a **belt sander**, **file** or sandpaper.
- Drilling holes with a **pillar drill** for the **clock mechanism**.
- Decorating your clock with **paint markers** and **vinyl stickers**.



Fretsaw



Files



Belt sander

Vinyl sticker sheets



Acrylic paint markers



Pillar drill



Acrylic sheets

Key Vocabulary

Design	Come up with, and develop, your own ideas for a product.
End User	The customer for whom you are designing your product.
Template	A paper prototype to use as a pattern for the pieces of acrylic you need to cut.
Structure	The way that your pieces of acrylic fit together to make the overall clock.
Acrylic	A hard, brightly coloured plastic; also a type of colourful paint
Vinyl sticker	A thin, sticky-backed plastic that can easily be cut into any shape you need with scissors.
Clock mechanism	A system of parts which move the hands of the clock, powered by a battery.
Evaluate	Think carefully about what went well and what you could have improved.