Year 8 DT – Product design: Plastics – Design movement clock project

The Ramsey Academy, Halstead

Design Brief

Students are asked to design and manufacture an analogue, wall clock that appeals to their chosen target market. The clock design needs to be influenced by one of the 3 main design movements students will study.

Key knowledge

- Categories of plastics – natural, bio and synthetic plastics
- Properties of polymers and their uses
- Health & Safety in the workshop

Skills and National Curriculum Links

Use specialist tools, techniques, processes, equipment and machinery.

- Fret saw
- Coping saw
- Pillar drill
- Wet and Dry paper
- Vinyl cutter
- Buffing wheel

Key vocabulary

Key vocabulary	Definition
Target market group (TMG)	a group of people with some shared characteristics that a company has identified as potential customers for its products.
Polymer	a chemical compound with molecules bonded together in long, repeating chains. Polymers fall into two categories: thermosetting plastic or thermoset.
Biodegradable	able to decay naturally and in a way that is not harmful
Aesthetics	The appearance/ how something looks, a core design principle that defines a design's pleasing qualities.
Functionality	refers to whether a design works and helps the users meet their goals and needs.
Material property	mechanical - how a material will perform and react when exposed to external forces and loads physical - something that can be measured, like weight and size
Usage	the act of using something : the way that something is used

Assessment and homework

Students will be assessed in 4 areas: Design, Make, Evaluate and Knowledge. Homework is set once a fortnight and students will have 2 weeks to complete it.

Differentiation

Students will be supplied with differentiated worksheets where appropriate. Students will have demonstrations for all practical tasks, with guidance sheets to refer to together with teacher and support staff assistance. Where necessary the project will be changed and adapted to student's individual needs.

Higher ability students will be taught use of additional tools and equipment to create more complex finishing techniques.