

Year 8 Design and Technology

Metals project: Hanging Basket

- Understand the principle properties of all materials.
- Research the source of common metals.
- Understand the properties of ferrous, non-ferrous and alloyed metals.
- Stock forms of metals.
- Understand and be able to join metals using a variety of cold and hot techniques.
- Safely manipulate steel to create a hanging basket.
- Safely join steel using hot metal processes of MIG welding, brazing and cold metal process of riveting.
- Evaluate the completed product and be able to modify the design to improve.

Casting project: Pewter Pendant / Zip pull and Packaging

- Understand industrial manufacturing methods and casting techniques.
- Create a design based upon the title "The Sea".
- Develop a design to create a pattern using the laser cutter.
- Create a 2D CAD model of the design for testing.
- Be able to cast pewter.
- Understand the processes of gravity and die casting.
- Safely use a range of hand and fixed power tools.
- Understand the importance of a quality finish when making products and be able to achieve a high quality product.
- Evaluate the success of the finished product and create modifications resulting from this.
- Create graphical packaging.
- Know different types of polymers and their common uses.
- Understand the vacuum forming process to create packaging.
- Know about the environmental impact, the 6Rs, carbon footprint of products.

Advice to students for independent study

- Students are advised to keep up to date with their work booklet.
- Make sure that diagrams and notes are clear which will make it easier to revise from for the end of year test.