RESISTANT MATERIALS

YEAR 7

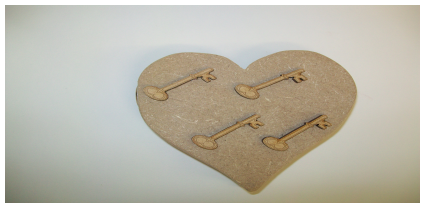
Designing and making a Trinket Box -
a decorative storage unit with a safe and secure compartment for holding small personal items.

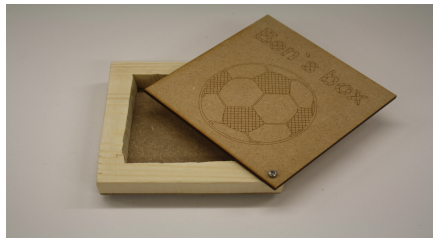
Design Brief

You have been commissioned by the "Beautiful Box Shop" to produce a bespoke laser cut embellished trinket box with pivot lid. It must be suitable for either a male or female or the unisex teenage market.

Design Specification

1. Box must be produced from Pine and/or MDF/plywood
2. Box Dimensions 120mm x 120mm x 25mm
3. Must store personal belongings safely and securely
4. Laser cut lid with decorative engraving
5. Mechanical Fixing & Butt Joint
6. High quality finishing process
7. The design must be environmentally friendly and made from a renewable resource.





YEAR 8

Automata

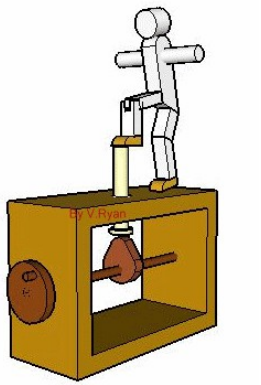
Design Brief

You have been commissioned by your local Toy Shop to produce a unique and imaginative mechanical toy. Your challenge is to produce an Automata suitable for young children.

Design Specification

Your Automata must;

1. Have a creative and quirky concept with a Clear theme
2. Have a laser engraved and cut character, figure or object
3. Have hand finished edges and corners
4. Have a computer printed decorative background and platform panel.
5. Have a working mechanism with successful movement and motion



YEAR 9

Focused practical Task and Product
Design to attract wildlife to a back garden

This course is designed to give a taster of the Resistant Materials skills that will be needed for GCSE.

All pupils will tackle a complex teacher led focused practical task that will give them the opportunity to become more proficient with practical skills and gain greater independence. Assessment of the project will focus on the proper use of both hand and machine tools and will have regard to the quality and accuracy of the finished product.

Following this, pupils will use their research and development which they have produced in response to a newspaper article to consider why certain species of birds are in decline in our gardens and what can be done to attract them. This directs them towards seeing a reason for their designing. They are not restricted to this particular brief but are encouraged to look at other areas of wildlife and the environment e.g. providing shelter etc. for hedgehogs, bees, butterflies etc. Having researched their chosen focus pupil's model their ideas in 3D using card and other materials.

Pupils will record their research, design ideas, final design, and evaluation of their model, including details of any modifications with reasons as well as making clear any improvements they would make if they could re-design or re-manufacture their product. They must include and state what impact it will have on society and the environment.