



Emoji Door Hanger Project

During this project we will learn about the categorisation of fibres and the properties and characteristics of textile fabrics (synthetic and natural). We will design and create a partially recycled toy. We will learn how to work with fabrics and learn about a range of equipment and processes used in hand stitching. We will consider sustainability and the environment whilst designing our recycled toy and will write a life cycle assessment. We will develop practical skills in marking out, cutting, sewing, stuffing and embellishing. We will further develop our design and rendering skills and make use of mathematical skills such as measurements, unit conversions, calculations. We will write a design brief and a specification and a practical write up.

Mechanisms Project

During this project we will learn about the different types of motion and a range of different mechanisms and gain an understanding of different components used in mechanisms and how mechanisms change movement and increase mechanical advantage for the user. We will study this in a practical way. We will model mechanisms such as levers, linkages, gears, and cams with various materials and modelling equipment such as card and Lego. We will develop problem solving skills and mathematical skills.

Mobile Phone Stand Project

During this project we will learn about the working characteristics and properties of different polymers. We will design and make an acrylic mobile phone stand. We will develop skills in engineering drawing methods (two-point perspective and orthographic projection) and the use of CAD/CAM (drawing using basic commands in 2D design and the use of the laser cutter). We will make use of the line bending machine, jigs and formers and processes needed to join and finish acrylic.

Polymorph Tag Project

During this project we will learn about a range of smart and modern materials. We will further develop our knowledge of polymers and forming plastics. We will develop our knowledge of scale and templates. We will practise our drawing skills, look further into manufactured boards and cutting tools. We will learn about vacuum forming and work creatively with the smart material, polymorph.

Food

In food this year you will be given the opportunity to use a range of practical equipment in the food room and develop your skills in working safely in the kitchen environment. You will build on your independence when following recipes. The recipes are especially centred around building on skills learned in Year 7 as well as new skills such as handling raw meat, the rubbing in method and shaping dough. You will further your knowledge of nutrition, how what we eat can affect us both positively and negatively, to understand what a balanced diet looks like.

Notes:

