



Moisture Sensor Project

During this project we will learn about basic electronic systems, looking at how simple circuits work and identifying a range of input, process and output components and their symbols. We will learn about conductors and insulators and the tools and equipment needed to safely solder a circuit. We will package the circuit that we made considering network and information and graphics needed for packaging. During this project we will focus on the research strand of the design process where we will learn the research techniques required to design and make successful product.

Gonk Project

During this project we will learn about metals and alloys. We will look at the sources and origins of metals, how they are categorised and begin to think about their properties. We will learn about the tools and equipment needed to work with metals safely and will learn how to cut, drill, shape and join metals. We will also learn how to do dip coating and why this is important when working with mild steel. We will learn about the advantages and disadvantages of CAD CAM and how to use the CNC Milling Machine. During this project we will focus on the Initial Design strand of the design process looking at what makes a good design, how to design to a specification and how to present a design to a client. We will also learn how to evaluate designs successfully to develop ideas.

Block Bot Project

During this project we will be learning about timber-based materials. We will look at the sources and origins of timbers, how they are categorised and begin to think about their properties. We will learn about the tools and equipment needed to work with timber safely and will learn how to mark out, cut, drill and sand timber. During this project we will focus on the development strand of the design process and learn what to consider when developing a design and why a product needs developing. To do this successfully we will need to be creative and use our problem-solving skills. To present our developments, we will learn how to draw using pictorial techniques such as isometric and perspective drawing skills. During this project the development of the design should have a cultural link.

Pneumatic Rocket Project

In this project you will learn the basics of Pneumatics. You will learn about trigonometry and how to use a clinometer. You will learn how to work as a team as well as using your problem-solving skills you will get the opportunity to be really creative! During this project we will focus on the Evaluation strand of the design process. We will learn how to evaluate and test a product and the questions to consider.

Food & Nutrition

During your time in food and nutrition you will learn about equipment, hygiene and safety in the kitchen. We will look at the different parts of the cooker and how to use each part safely through cooking a variety of dishes. The dishes are pizza toast (grill), pasta bolognese (hob) and flapjack (oven).

Notes:

