



The Mall School

Curriculum Guide

Design Technology in Year 8

Smartphone Portable Speaker Unit

Teacher: Mr Lang
Lessons: 1x70 minute lesson per week
Homework: None

The boys will solder prescribed electronic components onto a circuit board before testing it and then fabricating the case out of plywood or acrylic using the department's new 2D design software and laser cutter.

Introduction:

As with the start of all projects, a discussion on creativity and the importance of creativity kicks off the term. A slide show and real life examples are shown to instil into the class how creativity is essential to brighten up our world! Pupils will be asked their thoughts and judgements on various designs.

This is the boy's final project at The Mall and as such is quite an ambitious one. Working in pairs, though making individual speakers, the class will have an introduction to electronic circuitry, CAD design software and the use of the school's new laser cutter.

Time is tight so most lessons will be practical apart from the design element where boys will have to put their creativity to the test to house their speaker unit in an interesting and hopefully innovative manner.

The lessons will be based both in the DT workshop and the IT room when the 2D CAD software is needed

Key Objectives:

- A well developed appreciation of the importance of creativity
- An understanding and ability in the soldering process
- An awareness of the function of electronic components and circuitry
- A basic knowledge of materials and their properties
- An ability to select appropriate materials based on their properties
- The importance of sustainability
- An understanding and basic skills in using CAD software
- An appreciation of quality workmanship and materials
- Confidence using basic tools and machinery
- An ability to co-operate with peers
- An ability to retain and follow instructions accurately
- Evaluation skills

Resources:

The boys will be provided with everything that is required during lessons so they only need to turn up to class with a pencil case and a smile. Though it is always nice to see pupils who have researched ideas at home to inspire their classwork and bring in materials to assist them.



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