## Project 1; Music Box - Why do we study Electronics?

By studying Design and Technology we allow opportunities to develop skills and knowledge across a wide range of disciplines using traditional, practical and computer aided tools. Design and Technology covers Product Design, Resistant Materials, Electronics, Fashion and Textiles and Engineering, all problem-solving subjects building confidence and resilience in creative skills, testing, failing, improving and creating successful outcomes individually, or as part of a team.

We study electronics to gain a thorough understanding of the world around us. Through building circuits, coding microcontrollers, designing and making casings for our circuit boards, we develop key skills to be able to create solutions to everyday problems in innovative ways.

The Music Box project builds on what we've learnt from the racing car project and the FloGlow project, introducing us to coding microcontrollers. It develops our skills and understanding on how electronic products work. Students will solder their PCB, code it to play the tunes and lights that they want it to, using CADCAM to design and make a sustainable casing.



## **Project 2; Torch- Why do we study Electronics?**

By studying Design and Technology we allow opportunities to develop skills and knowledge across a wide range of disciplines using traditional, practical and computer aided tools. Design and Technology covers Product Design, Resistant Materials, Electronics, Fashion and Textiles and Engineering, all problem-solving subjects building confidence and resilience in creative skills, testing, failing, improving and creating successful outcomes individually, or as part of a team.

We study electronics to gain a thorough understanding of the world around us. Through building circuits, coding microcontrollers, designing and making casings for our circuit boards, we develop key skills to be able to create solutions to everyday problems in innovative ways.

The Torch project builds on everything that we've done so far in Electronics – soldering from the racing car, FloGlow and Music Box, and develops our skills of design and manufacture of the torch casing. We develop our making skills through a range of mini practical's which help you decide how you are going to make your casing. There are few rules – as long as it's appropriate, your torch casing can be whatever you want it to be – you just have to work out how to do it!

