

WE ARE AWESOME TOY MAKERS

HOOK:

Electricity

Eddison & Tesla

We are toy designers – Prototyping an interactive toy

Electrical systems: simple circuits and switches.

Where do we get power from?

OUTCOMES:

- Identify basic parts of a circuit, bulbs buzzers, cell/battery etc.
- Identify some common conductors and insulators and make associations between metals and being good conductors generally.
- Plan experiments using bulbs to answer a testable question.
- Study Eddison and Tesla and their legacy.
- Design and make an on-screen prototype of a computer-controlled toy.
- Understand different forms of input and output (such as sensors, switches, motors, lights and speakers).
- Design, write and debug the control and monitoring program for their toy.
- Select from and use tools and equipment to cut, shape, join and finish with some accuracy.
- Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities.
- Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.
- Apply their understanding of computing to program and control their products.
- Look at power generation and the distribution of natural resources in the U.K. and the world
- look at the use of renewables vs non renewables as energy sources
- Is nuclear power the future? Pupils to express their opinion on the question
- Look into sustainability of power generation and resource use.