



# Buglawton Primary School

Be the Best We Can

Topic: Electrical systems

Subject: DT

Year: 6

Term: Autumn

### What should I already know?

- Begin to understand and use electrical systems in their products linked to science coverage.
- Begin to understand how more complex electrical circuits and components can be used to create functional products.
- Begin to apply their understanding of computing to program and control their products.
- Know and use technical vocabulary relevant to the project.

### What will I know by the end of the unit?

- Understand and use electrical systems in their products linked to science coverage.
- Apply their understanding of computing to program, monitor and control their products.
- Know and use technical vocabulary relevant to the project.
- Understand that mechanical and electrical systems have an input, process and output.

### What should I be able to do by the end of the unit?

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces.
- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.
- Accurately apply a range of finishing techniques, including those from art and design.
- Draw up a specification for their design- link with Mathematics and Science.
- Plan the order of their work, choosing appropriate materials, tools and techniques.
- Suggest alternative methods of making if the first attempts fail.
- Confidently select appropriate tools, materials, components and techniques and use them.
- Use tools safely and accurately.
- Assemble components to make working models.
- Demonstrate when to make modifications as they go along.
- Know how more complex electrical circuits and components can be used to create functional products.
- Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests.

### Prior Key Vocabulary

#### Series circuit



a circuit made in a single loop, where the electricity passes by one part of the circuit at a time.

#### Battery



a source of electrical power

#### Connection

#### Conductor



where something is connected

allows electricity to pass through it

#### Insulator

#### buzzer



does not allow electricity to pass through it

Makes a noise when electricity passes through it

### Key Vocabulary

#### input

where energy or information enters the circuit

#### output

where energy or information leaves the circuit

Agreed Real-Life Outcome:

Research how electricity is used to create sound and lights. Produce informative leaflet or similar to describe this process.

Make a shadow theatre. Begin by creating a circuit with a bulb in, then create shadow puppets and a screen



process	
It receives a signal from the input and then tells the output what to do. This could be a switch or resistor.	