

Term: 2021/22 Spring 2 Year 6

Learning Challenge Question: Why is electricity important?

WOW – <https://wowscience.co.uk/>

resource/remote-control-roller/ which pair can get it the furthest?

Week 1: How was electricity discovered?

Science LI: I can explain the importance of the major discoveries in electricity.

Identifying scientific evidence that has been used to support or refute ideas or arguments in the context of the major discoveries made by scientists in the field of electricity.

Week 2: How do volts affect a circuit?

Science LI: I can observe and explain the effects of differing volts in a circuit.

Use recognised symbols when representing a simple circuit in a diagram by observing and explaining the effect of different volts in a circuit.

Week 3: Why do bulbs shine at different brightnesses?

Science LI: I can observe and explain the effects of different volts in a circuit.

Associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit by observing and explaining the effect of different volts in a circuit.

Week 4: What can you find out about electricity?

Science LI: I can plan an investigation. I can understand variations in how components function. I can conduct an investigation. I can record my data and report my findings. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches

Week 5: Can you code?

Computing LI: I can create and debug a code.

Create a code using SCRATCH to explain how circuits work.

Week 6: Reflection week

Double page spread.

English Text: The Matilda Effect

Week 1-2 Narrative

Week 3-4 Biography – Thomas Edison

Week 4-6 Discussion text

RE – Is it better to express your religion in arts and architecture, or in charity and generosity?

MFL – Numbers/Alphabet, Preferences, My local area

Driver: Science

Knowledge:

- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- use recognised symbols when representing a simple circuit in a diagram.

Skills: Fair testing; Pattern Seeking

- I can use scientific knowledge and experience to raise new questions.
- I can select and plan most appropriate type of scientific enquiry to answer scientific questions.
- I can record results using scientific diagrams.
- I can look for causal relationships in the collected data.
- I can use relevant scientific language to communicate causal relationships.

Computing

- I can create an algorithm in Scratch, e.g. to replicate a circuit, to turn on and off lights
- I can debug a program, algorithm or a set of instructions, e.g. to ensure electricity themed game or program runs.
- I can use a variable to make a change e.g. to change rate the lights flash on and off.
- I can detect and correct errors in algorithms and programs.
- I can present data using a range of programs e.g. Excel (spreadsheet program)
- I can use a range of data appropriate for purpose.

Homework:

What interesting facts can you find about electricity?