Year 4 Summer Term 1 **Science** **Unit: Switched On**

Lake Farm Park Academy

Learning, Achieving, Aspiring Together.

What I should already know.

- Electricity can occur naturally, for example, lightning and static electricity.
- There are two types of electrical current that we use to power appliances: mains electricity and batteries.
- Electricity can be used to produce light, sound, heat and movement.

Main driver question

How does electricity affect our lives?

Mini driver questions

1. How does electricity make things work?
2. How can you light the bulb?
3. How does electricity flow in a complete circuit?
4. Why do some circuits not work?
5. How does a simple switch work in a circuit?
6. What can we use instead of wires?
7. What types of material conduct electricity?
8. How are electrical conductors and insulators used?
9. How can we connect up the quiz board?
10. Write a biography on Nikola Tesla (MDQ).

Vocabulary	
Word	**Definition**
circuit	a system of electrical components that make up an electrical circuit
cell	converts energy to electricity
wire	a length of material that conducts electricity
bulb	a device that provides light when electricity passes through it
appliance	a device designed to perform a task
batteries	a collection of cells
current	the steady flow of electrons
voltage	a collection of cells

Useful websites

https://www.bbc.co.uk/bitesize/topics/z2882hv/articles/zcwnv9q
https://www.bbc.co.uk/bitesize/topics/zj44jxs
http://www.primaryhomeworkhelp.co.uk/revision/Science/electricity.htm

Did you know?

One flash of lightning could power 1,000 houses for a whole year.

What I should know at the end of the unit

I should know how to:

- identify common appliances that run on electricity;
- construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers;
- identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery;
- recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit;
- recognise some common conductors and insulators, and associate metals with being good conductors.