St Andrew's C of E Maghull

Science Knowledge Organiser

Year 6 – Autumn 2 – Changing Circuits

Knowledge	Vocabulary	Lesson Sequence
I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. I can 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. I can use recognised symbols when representing a simple circuit in a diagram.	**Circuit diagram** - A drawing meant to depict the physical arrangement of the wires and the components they connect is called artwork or layout, physical design, or wiring diagram. **Circuit symbol** - Circuit symbols and names are small images that represent an electrical or electronic device or function. Circuit symbols and names are used for creating diagrams. And these diagrams show how a circuit is connected. They are essential in designing circuits or making printed circuit boards for a project. **Voltage** - the pressure from an electrical circuit's power source that pushes charged electrons (current) through a conducting loop, enabling them to do work such as illuminating a light. In brief, voltage = pressure, and it is measured in volts (V).	**Lesson 1** – I can build and test a range of simple circuits using common components. **Lesson 2** - II can use circuit symbols to represent components in a simple circuit diagram. **Lesson 3** – I can plan to investigate how voltage affects the brightness of a lamp in a circuit. **Lesson 4** – I can plan and investigate variables that may affect the brightness of a bulb in an electric circuit. **Lesson 5** – I can predict and test how to change the volume of buzzers in a circuit. **Lesson 6** – I can explain how a switch is used in a simple circuit. **Lesson 7** – Assessment 2 (substantive knowledge)