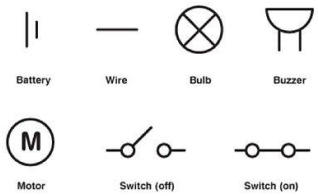
Powick CE Primary Knowledge Organiser for Science.

Topic	Electricity	Term	Autumn	Year Group	6

Vocabulary	
generated	to be made: electricity is generated by a generator
renewable	A source that will not run out: sun, wind.
non-renewable	Electricity made from sources of fuel that will run out: fossil fuels (coal, gas, oil).
stored electricity	Electricity not from a mains supply, but a battery.
circuit	Allowing electricity to flow around through wires and components.
symbols	Universally agreed drawings for the components of an electrical circuit: 
complete / incomplete circuit	A complete (whole) circuit will allow electricity to flow; an incomplete one will not.
switch	These can be open or closed in a circuit allowing electricity to flow or stop flowing.
cell or battery	stored electricity
volts or voltage	Batteries have a measure on voltage.
components	Parts of an electrical circuit, like a cell, motor, switch, bulb, buzzer, wires that are positioned in a circuit.

Concepts and Knowledge	
What we will learn about electricity through our investigations:	**Electricity is generated** (made) and can be transported and used. **There are renewable sources** of electricity generation – wind turbines, solar panels, hydro-electric power. **Electricity needs a circuit** in order to flow. There are universally agreed **electrical symbols.** **Circuit diagrams** can be drawn to show when a circuit works and when a circuit does not work, showing why. **The brightness** of a lamp or **the volume** of a buzzer can be associated with the **voltage of cells** in a circuit. **Components** in a circuit can be used purposefully for everyday life.
Conductivity 	Benjamin Franklin carried out experiments and made discoveries about electricity during a lightning storm.
	When carrying out a scientific investigation, we need: **an independent variable** (the thing we are changing) **control variables** (the things we are keeping the same) **observations and measurements when the independent variable changes** **dependent variable** (what happens as a result of the independent variable changing)
	Draw conclusions from data and observations, use evidence to justify ideas, use scientific knowledge and understanding to explain findings. Use scientific ideas when describing simple processes.