## Year 3/4: Electricity Knowledge Mat

## Subject Specific Vocabulary Dozen

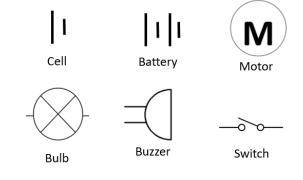
electricity	The flow of an electric current through a material, e.g from a power source through wires to an appliance.
current	The flow of electricity.
battery/ cell	A device that stores electrical energy as a chemical. A battery is multiple cells.
mains	A source of electricity from power stations.
circuit	A pathway that electricity can flow around. It includes wires and a power supply and may include bulbs, switches or buzzers.
component	Components are objects that can be connected together to form an electrical circuit. Blubs, buzzers and batteries are examples of components.
conductor	A material that would allow electricity to pass through it.
insulator	A material that would stop or slow down electricity.
switch	Switches can be used to open or close a circuit.
motor	A device that converts electricity into motion.
blub	An object that produces light from electricity.
connect connection	Every component in an electrical circuit needs to be connected to work.

What I will know at the end of the unit:

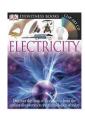
What is electricity?
What uses electricity?
What are the dangers of electricity?
What is a circuit?
What parts could you use to make a circuit?
Which material is best for a switch?
What are common conductors and

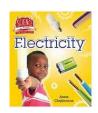
insulators?

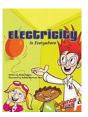
Can we light a bulb without a wire? How we can put buzzers and motors into a circuit?



## **Exciting Books**







## Sticky Knowledge about electricity

- Many household devices and appliances run on electricity. Some plug in to the mains and others run on batteries.
- An electrical circuit consists of a cell or battery connected to a component using wires. If there is a break in the circuit, a loose connection or a short circuit, the component will not work.
- A switch can be added to the circuit to turn the component on and off.
- Metals are good conductors so they can be used as wires in a circuit.
- Non-metallic solids are insulators except for graphite (pencil lead).
- Water, if not completely pure, also conducts electricity