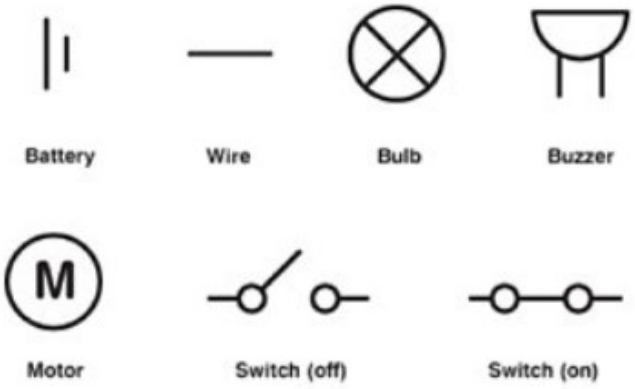
Carr Head Primary School – Knowledge Organiser

Science	Electricity	Year 6	Summer 1

Key Knowledge	
Circuit	Electricity can flow through components in a complete electrical circuit. A circuit needs a power source , such as a battery, with wires connected to both the positive (+) and negative (-) ends. A battery is made from a collection of cells connected together. A circuit can also contain other electrical components, such as bulbs, buzzers or motors, which allow electricity to pass through.
Electrical components	A component is a part of an electrical circuit.
Circuit diagram	When drawing circuit diagrams, rather than drawing detailed components, we use simple symbols to represent the different components.
Current	Current is the flow of an electric charge. It flows through a circuit when a voltage is placed across two points of a conductor.
Low resistant route	Electricity follows the path of least resistance. Some materials have low resistance and are conductors.
Electromagnet	Electromagnets are created using electricity and a magnetic material such as iron, an iron nail is perfect for this example. When electricity passes through a copper wire it creates a magnetic field around the wire. By winding a coil of wire around an iron core you can increase the strength of the magnetic field produced and create an electromagnet.

Key Vocabulary	
Electricity	Electricity is an energy. It can be used to power electrical items such as toasters, kettles, T.V.s, etc. Electrical energy is caused by electrons (the
Symbols	Circuits are drawn using symbols instead of drawing of the real equipment. This is to make the drawings easier. There are special symbols for everything that may be required in a circuit.
Fault	An abnormal flow of electrical cur-
Series circuit	A series circuit only has one path fir
Conductor	Some materials are insulators , as
Magnetic filed	The magnetic field is the area around a magnet in which there is a mag-



Know how to…	
Working Scientifically	Systematically identifying the effect of changing one component at a time in a circuit.
	Designing and making a useful circuit.
	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

Thomas Alva Edison (1847 – 1931) was an American inventor, most famous for inventing the long-lasting , practical lightbulb.