River Journey

Source	The start of a river is its source. It is where it begins its journey. This could be a spring on a hillside, a mountain, a lake, or a bog or marsh. A river may have more than one source.
Waterfall	An area where water flows over a vertical drop or a series of steep drops in the course of a river. Soft rock is eroded by water which leaves a hard rock ledge from which the water falls.
Meanders	A curve in a river which forms a snake-like pattern. The river erodes sediment on the outside of the curves and drops it on the inside of curves due to water moving fastest on the outside of a turn.
Mouth	The end of a river where it flows into the sea, another river or a lake is known as the mouth of the river. Much of the river's gravel, sand, silt and clay are deposited here.
Delta	A wide muddy or sandy area where some rivers meet the sea at a very slow speed, or often in still/stagnant water. The river slows and drops all the sediment that it was carrying, creating a wide, marshy area.

River Management

Drinking Water	Rivers, lakes or reservoirs may sometimes look clean but they are often filled with bacteria which can make you sick. It is therefore treated to make sure it meets safe drinking standards before being pumped to homes.
Sampling and Research	Water sampling is the process of taking a water for testing. It is also used to test the health of the river and to find out if pollution, such as chemical from farming, are present.
Dams	A dam is a barrier that stops or restricts the flow of water or underground streams. Reservoirs created by dams not only prevent floods but also provide water for activities such as irrigation, drinking water and industrial use.

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RIVERS

A river is the path that water takes as it flows along a channel downhill with banks on both sides and a bed at the bottom. If there is lots of rain, snow or melting ice, rivers often overflow beyond the top of their banks and begin to flow onto floodplains at either side.

Image by Hel-Hama: https://commons.wikimedia.org/wiki/File:River_Nile_map.svg - 2013

Key Vocabulary

channel	a path of a narrow body of water where water flows
estuary	mouth of a large river, where the tide meets the stream
gorge	narrow valley with steep, rocky walls through hills/mountains
River Severn	Longest river in the U.K. (354km) through the city of Bristol
River Thames	346km long river running through the city of London
canal	man-made water channels for flow, vehicles and irrigation
basin	land drained by a river and its tributaries
floodplain	flat area around a river that often gets flooded
irrigation	supply of water to land or crops to help growth
bank	the land at the side of the river
weir	low dam built across a river to raise the level of water
bridge	structure built to allow people to cross a river
pumping station	facilities including pumps and equipment for pumping water from one place to another, supplying water to canals, removing sewage to processing sites and to drain land.
tributary	smaller river which joins onto the main channel of a river

The Nile

The Nile begins as two rivers. The White Nile comes from Lake Victoria in Uganda and the Blue Nile starts in the Ethiopian Highlands. They join together in Sudan to form one river. The River Nile brings water to the Sahara Desert and, for thousands of years, it has been used to water crops (irrigation). Rivers were also important trade routes. It eventually reaches the sea but due to the heat, much of it evaporates before it gets there. it also splits into many smaller rivers forming a delta.

Erosion and Deposition

Erosion is when materials, like soil or rocks, are moved by water. All these materials are called sediments. Deposition is when those sediments are deposited, or dropped off, in a different place. When rivers are flowing fast, they knock bits of earth from the banks and bed of the river (its sides and bottom) and carry it downstream with them.

WORLD'S LONGEST RIVERS

Nile – 6695km (Africa)

Amazon – 6516km (South America)

Yangtze – 6380km (Asia)

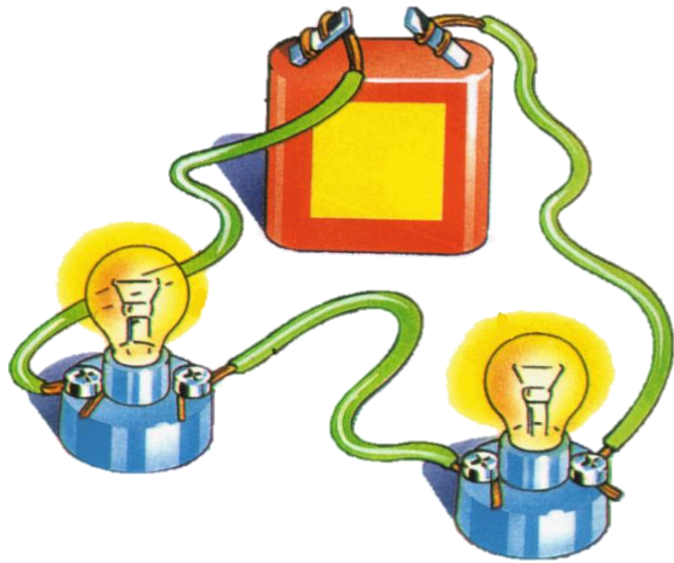Mississippi/Missouri – 5969km (North America.)

Murray/Darling – 3672km (Australia)

ELECTRICITY KNOWLEDGE ORGANISER

What you should already know...

-Electricity is a type of energy.

-It is used to power lots of different things, including many items that we use in everyday life.

-Electricity can flow through wires and cables, and can be stored in batteries (sometimes called cells).

-Electricity can flow in simple series electrical circuits.

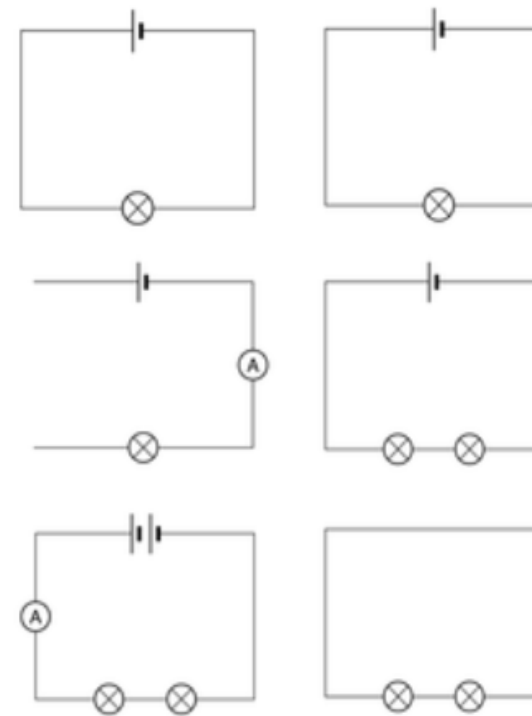-Some materials conduct electricity, and others do not (insulators).

Electricity Safety

If electricity is not used safely, it can be highly dangerous. When using electricity, make sure that you:

-Make sure that wires are placed in safe locations, where people cannot trip over them;

-Never stick your fingers or objects into a plug socket;

-Never use frayed wires – don't pull wires;

-Ensure that your hands are dry when you are near sockets/ electrical equipment;

-Do not overload a plug socket;

-Always get broken appliances and plugs fixed.

Circuit Diagrams

When drawing electrical circuits, you should use the standard symbols to show the different components.

Bulb (Lighting)

Bulb (Indicator)

Buzzer

Motor

Switch (Open)

Switch (Closed)

Cell

Battery
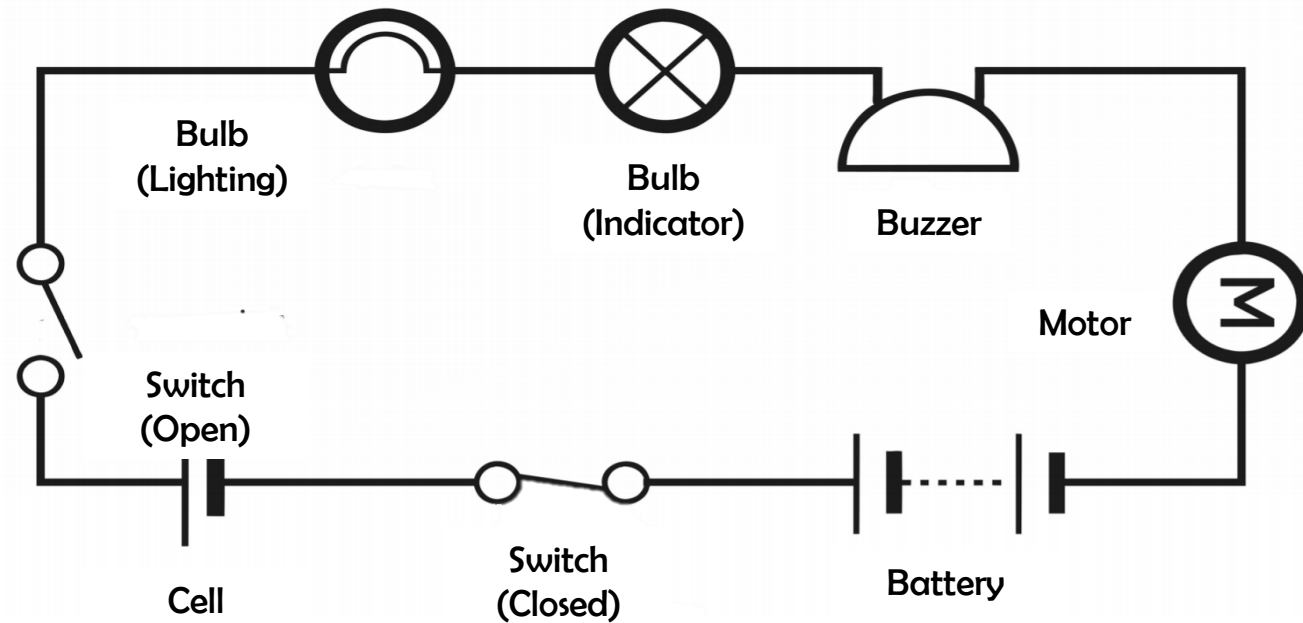
Variation of Components

When changes are made to circuits, components can function differently:

-When switches are open or wires are removed from a circuit (so that it is no longer a closed circuit), bulbs and buzzers will turn off. You can use crocodile clips to investigate adding and removing wires.

-When more batteries or cells are added (or batteries or cells are included with a higher voltage) the brightness of bulbs and the volume of buzzers will increase.

-When more bulbs are added to a simple circuit, they will be dimmer than if there were one bulb. This is because the electricity is shared between the two bulbs. More voltage would be needed to make them brighter.

You should be able to look at circuits like those on the left, and work out what would happen.

Key Electrical Vocabulary

| Switch | Bulb | Voltage | Motor | Battery | Buzzer | Cell | Voltmeter | Ammeter | Wire |