Science: Electricity
Year 6 Spring 2

Key Vocabulary

Conductor	A material or device that conducts or transmits heat or electricity.
Flow transfer	A transfer of electricity.
Circuit symbol	A drawn representation of an electrical component.
Component	A part or element of a larger whole.
Parallel circuit	Electrical components or circuits connected to common points at each end, rather than one to another in sequence.
Function	To work or operate in a proper or particular way.
Voltage	An electromotive force or potential difference expressed in volts.
Circuit diagram	A graphical representation of an electrical circuit.

Why don't you...

Create a pairs game, matching symbols and actual drawings?
Draw a picture of a circuit in your house, draw the same circuit using symbols, then label them?
Create a symbol for a tablet or phone then write a formal letter to the Director of Apple to introduce the symbol and explain why it should be used?

Scientific Concepts

Structure and Function – Anything composed of parts arranged together in some way has a structure. A function is a specific job or procedure.

Energy - Strength and power. There are many forms such as thermal (heat), radiant (light) or kinetic (movement).

Enquiry Questions

What happens when we replace a 1.5v battery with a 3v one?
Does using more batteries affect the output?
Can you design a circuit with 3 bulbs, ensuring that the bulbs have equal brightness?
Can you list all the possible variables that will affect a bulb's brightness?
How can you control a buzzer and a bulb separately within a circuit?
Can you explain the benefits of a parallel circuit?

Website Links

http://www.andythelwell.com/blobz/.
http://www.hyperstaffs.info/science/work/physics/child/main.html

Scientific Knowledge

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- 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.
- Use recognised symbols when representing a simple circuit in a diagram.

Scientific Skills

- Use different ideas and suggest how to find something out.
- Make and record a prediction before testing.
- Plan a fair test and explain why it was fair.
- Set up a simple fair test to make comparisons.
- Record their observations in different ways (labelled diagrams, charts etc).
- Describe what they have found using scientific words.
- Use a range of equipment (including a data-logger) in a simple test.