|  |  |
| --- | --- |
| Electricity | Macintosh HD:Users:mrsgsinclair:Desktop:BL:Bishops Lydeard Logo.png |
| Year 6 – Year B Terms 1 and 2 |
| Prior Learning**In Year 4, children should:*** Identify common appliances that run on electricity.
* Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
* Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
* Recognise that a switch opens and closes the circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.
* Know the difference between a conductor and an insulator; giving examples of each.
* Safety when using electricity.
 | Year 6 Learning* Batteries are a store of energy. This energy pushes electricity round the circuit. When the battery’s energy is gone it stops pushing. Voltage measures the ‘push.’
* The greater the current flowing through a device the harder it works.
* Current is how much electricity is flowing round a circuit.
* When current flows through wires heat is released. The greater the current, the more heat is released.
 | Key Questions* Do all batteries push as hard as each other?
* What is electricity?
* How does the voltage of a batters affect how much current is pushed?
* How does the length of time I leave the current flowing for affect the brightness of the bulb?
* How does number of bulbs affect the brightness of a bulb?
* Are all types of wires as good as conducting electricity?
* Why are wires insulated in plastic? Does type of material make a difference?
* Does length of wire make a difference?
* Does the type of circuit affect how the components work/long the battery lasts?
* What renewable ways can we generate electricity?
* How does current affect heat?
* What are the dangers of a short circuit?
 | Future LearningIn Key Stage Three children will learn: * Electric current, measured in amperes, in circuits, series and parallel circuits, currents add where branches meet and current as flow of charge
* Potential difference, measured in volts, battery and bulb ratings; resistance, measured in ohms, as the ratio of potential difference (p.d.) to current
* Differences in resistance between conducting and insulating components (quantitative).
* Separation of positive or negative charges when objects are rubbed together: transfer of electrons, forces between charged objects
* The idea of electric field, forces acting across the space between objects not in contact.
 |

|  |
| --- |
|  |

|  |
| --- |
|  |