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| 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 Learning  In 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. | |

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