Year 7 Electromagnets

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| Key stage 2 | Year 7 | Year 8 |
| **Year 3**   * Magnet rules   **Year 4**   * Electrical appliances * Simple circuits and components   **Year 6**   * Link brightness of bulb with number of cells in a circuit * Simple series circuits * Investigating circuits | * Potential difference * Modelling current * Resistance * Resistance equation (R=V/I) * Modelling resistance * Series and parallel circuits * Potential difference in a series circuit * Modelling series and parallel circuits * Current * Current in a series circuit * Current in a parallel circuit * Static electricity and charge | * Magnetism rules * Magnetic fields * Electromagnets * Using electromagnets |

Engaging / practical work

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| Year 7 | Year 8 |
| * Static electricity (not VdG) comb, water, balloons etc * Fruit / potato batter using low voltage LEDs rather than lamps * Conductive putty – investigating resistance * Making a home-made dimmer switch * Series and parallel circuits – copper tape | * Levitating magnets * Magnetic fields - iron fillings * Identify the mystery object with magnets * Magnet or magnetic material? |

Modelling activities

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| Year 7 |
| * Potential difference * Current in a circuit * Resistance * Series and parallel circuits * Static electricity and charge |