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| **Year Group - 3 & 4** | | **Date – Term Two** | |
| **Curriculum Links** | Sc4/1.2    setting up simple practical enquiries, comparative and fair tests  Sc4/1.3    making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers  Sc4/1.4    gathering, recording, classifying and presenting data in a variety of ways to help in answering questions  Sc4/4.2a    identify common appliances that run on electricity  Sc4/4.2b    construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers  Sc4/4.2c    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  Sc4/4.2d    recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit  Sc4/4.2e    recognise some common conductors and insulators, and associate metals with being good conductors. | | |
| **Session Procedures** | **Before** - Check for rubbish, glass, hazards. Check weather forecast  **During –** Keep vigilant regarding broken branches, slippery ground  Wear Hi-Viz jacket. Road safety to get to the park  **After** – clear everything away and return any natural objects to their original place  **Wash hands** | * Wash hands after touching outside objects * Remind the children about how sharp some sticks can be and to be careful of brambles and stinging nettles. * Remind children to be careful not to let the sticks fly out of their hands and go in someone else’s eye. * Gloves must be worn for both litter picking and gardening * The school grounds are our classroom and must be treated with respect. | **Equipment**  Bulb  Buzzer  Wire  Battery  Switch |
| **Introduction and Activity Opportunities** | **Indoors –** Watch the clips with the history of morse code and Dick and Dom trying it  <https://www.bbc.co.uk/education/clips/zc3xn39>  <https://www.bbc.co.uk/cbbc/watch/morse-code>  The Dangerous Book for Boys has good information about Morse Code and its uses.  **Starter activity – Looking at a simple circuit and what they do -** <https://www.bbc.co.uk/education/clips/zq3fb9q> in teams create a circuit  <http://bpes.bp.com/media/26513/CircuitTraining.pdf>  **Main activity – Create a circuit with which to send a signal to the other half of your team**  - your team have crash landed and need to send for help. All communication devises are down and you must use the circuitry to send a message for help.   * In teams of 4 make a circuit powering either a buzzer or a lamp to send a morse code signal across the field. * Show the teams the morse code. Each team will have a copy of the code and scrap paper for transcribing. * Practise sending messages to each other – you need to be accurate with the dots and dashes that you send and with your transcription of the message. * Finally teams are given a message to send to the other side of the field. The winning team will be the first to deliver the message to the teacher | **Vocabulary**  Electricity  Circuit  Conductor  Wires  Switch  Bulb |
| **Plenary** | * Imagine what it was like before electricity enabled Morse Code - a pony would have taken the messages. * What strategy did you use to make sure that the morse code was clear? |

