Springfield School

|  |
| --- |
| Blackbirds Class Medium Term Planning for Science 1 |
| Topic: Pioneers  | Vocabulary: Electricity, battery, circuit, lever, switch  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson 1 ‘link it’** **What is Electricity?** Exposition – What is electricity? Sort electric items from non-electric items. Groups – Spot electrical items around the classroom. Sort electric and non-electric items. Plenary – Share work  | **Lesson 2 ‘learn it’** **Electric or battery?**  Exposition – What uses electricity and what uses battery? Groups – Sort real items around the classroom. Sort pictures of electric and battery items. Plenary – Share work  |  **Lesson 3 ‘learn it’** **Setting up circuits**.Exposition – What is a circuit? What does it look like. Groups – Set up a simple circuit. Draw a circuit. Plenary – Share work  | **Lesson 4 ‘learn it’**  **Setting up circuits**.Exposition – What is a circuit? What does it look like. Groups – Set up a circuit. Draw a circuit. Plenary – Share work  |
|  **Lesson 5 ‘learn it’**  **Setting up circuits**.Exposition – What is a circuit? What does it look like. Groups – Set up a circuit. Draw a circuit. Plenary – Share work  | **Lesson 6 ‘check it’**  **Setting up circuits**.Exposition – What is a circuit? What does it look like. Groups – From a plan, set up a circuit. Plenary – Share work  |   |  |

Take the objectives for the LO stickers from this section

|  |  |
| --- | --- |
| Substantive Knowledge (Content) | Disciplinary Knowledge (Skills)  |
| **Asking Questions and carrying out Fair and Competitive Tests**

|  |
| --- |
| Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. **Children can:** **a** start to raise their own relevant questions about the world around them in response to a range of scientific experiences; **b** start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; **c** recognise when a fair test is necessary; **d** help decide how to set up a fair test, making decisions about what observations to make, how long to make them for and the type of simple equipment that might be used; **e** set up and carry out simple comparative and fair tests.  |

Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.  | * Learn that electric toys or equipment need batteries or to be plugged in
* Investigate with simple electrical components and equipment – fans, lights, fans, motors, switches, buzzers.
* Build a simple working circuit
* **Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product.**
 |

Progression of Learning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ‘Link It’  | ‘Learn It’ | ‘Check It’  | ‘Show It’ | ‘Know It’ |
| Previous learning of pupils * Knowledge of electricity and why we need electricity.
 | Activities provided during lesson Resources **PPTs** **Pictures** **Batteries, wires, clips, switches. Electric and battery operated items** Activities to explore – - Creating circuits - Testing toys - Different forms of electric  | Independent activities linked to lesson Resources **PPTs** **Books** **Pictures** Activities- Circuits- wires batteries, clips and switches -Opportunities to demonstrate knowledge  | How will the pupils share knowledge during or end of lesson**Explore and discuss photographs of lessons**Share and compare work through performance  | Retrieve or generalization of learning after lesson * Understand why we need electricity
* Understand how electric works
* Understand the formation of circuits.
 |