Preparing to teach this sequence – Year 6 – Circuit breakers

**Year 6**

# Science journals

Create a class science journal, either in hard-copy or digitally. You might:

* use/create a large scrap book or flip chart.
* use poster/butchers’ paper so learning can be displayed in sequence on the wall.
* create a digital journal using your platform/ technology of choice.
* any combination of the above.

Plan for students’ creation of an individual science journal, either in hard-copy or digitally. They might:

* use an exercise book, scrap book or flip chart to record their thinking and gather resource sheets together.
* use a folder to store and collate resource sheets, diagrams, photographs etc.
* use a digital folder to store work samples, images and videos.
* any combination of the above.

See [Using a science journal throughout inquiry](https://primaryconnections.org.au/resources-and-pedagogies/strategies/using-science-journal-throughout-inquiry) for more detailed information on the importance of science journals.

# Additional preparation

* Read through the teaching sequence.
* Note any adaptations you would like to make to suit your schools’ and students’ context.
* The equipment list contains the maximum number of each piece of equipment that will be required across the teaching sequence. Some lessons may not need the full number that is listed.

# Materials required for this teaching sequence

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Resource | Lesson in which this resource is required | | | | | | | | | | | | |
|  | **Lesson 1** | **Lesson 2** | | **Lesson 3** | | **Lesson 4** | | | **Lesson 5** | | **Lesson 6** | **Lesson 7** | |
| Class science journal (digital or hard-copy) | X | X | | X | | X | | | X | | X | X | |
| Individual science journal (digital or hard-copy) *per student* | X | X | | X | | X | | | X | | X | X | |
| Materials to create a word wall | X | X | | X | | X | | | X | | X | X | |
| Materials to create a TWHL chart | X |  | |  | |  | | |  | |  |  | |
| Materials to create a T chart | X |  | |  | |  | | |  | |  |  | |
| Equipment to enable the viewing of online resources including images, videos and websites | X |  | |  | |  | | |  | |  |  | |
| 1 x battery operated torch *per group* | X | X | |  | |  | | | X | | X | X | |
| Stripping pliers (to strip the insulation from the wires if required) |  | X | | X | | X | | | X | | X | X | |
| Up to 4 x 1.5 V AA batteries *per group* |  | X | | X | | X | | | X | | X | X | |
| Up to 4 x 1.5 V battery holder *per group* |  | X | | X | | X | | | X | | X | X | |
| Up to 4 x 1.5 V light bulb (+ spares) *per group* |  | X | | X | | X | | | X | | X | X | |
| Up to 4 x 1.5 V light bulb holder *per group* |  | X | | X | | X | | | X | | X | X | |
| 10 x 10 cm length insulated wire, with ends stripped (+ spares) *per group* |  | X | | X | | X | | | X | | X | X | |
| Cardboard *per group* |  | X | |  | |  | | |  | |  | X | |
| Sticky tape *per group* |  | X | |  | |  | | | X | |  | X | |
| Scissors |  |  | |  | |  | | |  | |  | X | |
| Bicycle (with chain) |  |  | | X | |  | | |  | |  |  | |
| Blu tack |  |  | | X | |  | | |  | |  | X | |
| 8-10 toy cars |  |  | | X | |  | | |  | |  |  | |
| 2 x A4 paper *per group* |  |  | | X | |  | | |  | |  | X | |
| Optional: light meter *per group* |  |  | |  | | X | | |  | |  |  | |
| Wooden items (eg toothpicks, corks) *per group* |  |  | |  | |  | | | X | | X | X | |
| Plastic items (eg straws) *per group* |  |  | |  | |  | | | X | | X | X | |
| Rubber items (eg rubber bands, balloons) *per group* |  |  | |  | |  | | | X | | X | X | |
| Metal items (eg paperclips, thumb tacks, alfoil, split pins) *per group* |  |  | |  | |  | | | X | | X | X | |
| Optional: electric buzzer *per group* |  |  | |  | |  | | | X | | X | X | |
| Student resource sheets Both **demonstration copies** for whole class reference, and **individual copies for each student/group** are required.  Whilst students often work collaboratively in teams to plan and carry out investigations, you might prefer for each student to create their own record to assist in the assessment of their Science understanding and Science inquiry. Teachers are best placed to make this decision based on the needs of their students. | | | | | | | | | | | | | |
|  | **Lesson 1** | | **Lesson 2** | | **Lesson 3** | | **Lesson 4** | **Lesson 5** | | **Lesson 6** | | | **Lesson 7** |
| Testing circuits Resource sheet |  | | X | |  | |  |  | |  | | |  |
| Light it up investigation planner Resource sheet |  | |  | |  | | X |  | |  | | |  |
| Testing insulators Resource sheet |  | |  | |  | |  | X | |  | | |  |
| Switch planner Resource sheet |  | |  | |  | |  |  | | X | | |  |
| Prototype planner Resource sheet |  | |  | |  | |  |  | |  | | | X |