

Toy with electrical circuit

| Criteria for assessment | Evidence of levels of performance | | |
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| <p>Science</p> <p>Science knowledge and understanding Knowledge and understanding of the electrical circuits used to make the toy work</p> | Creates a working toy but requires considerable teacher assistance | Creates a toy that incorporates a working circuit which performs a specific movement | Creates a toy which performs more than one movement and uses more than one type of circuit to achieve this |
| <p>Ability to demonstrate safe, technical use of a range of circuitry components and their arrangement</p> | Creates a toy which performs unreliably and lacks a switch to close/open the circuit | Creates a toy which performs reliably. The toy has a complete closed circuit that relies on an on/off switch to perform the assigned movement | Creates a toy which performs reliably. The toy uses complete closed circuits and relies on an on/off switch to perform the assigned tasks. The performs simultaneous movements |
| <p>Ability to use correct scientific terminology and symbols</p> | Uses mainly correct scientific language and symbols to provide a partial explanation of the circuit in diagrammatic form | Uses correct scientific language and symbols in both verbal and diagrammatic form to accurately explain the circuit | Correctly uses scientific language and symbols to provide an accurate and detailed explanation of the circuit(s) in verbal, written and diagrammatic form |
| <p>Thinking Processes</p> <p>Creativity Ability to think creatively</p> | <p>Suggests fewer than three ways in which the task specifications might be met</p> <p>Provides some log book evidence of sketches which are partially labelled, of the way the design has been developed and the modifications made to selected design</p> | <p>Provides three satisfactory ways of successfully meeting the task specifications</p> <p>Provides log book evidence of sketches which are fully labelled with , annotations, of sequential development and modifications made as a result of problems encountered</p> | <p>Provides three satisfactory ways of successfully completing the task by incorporating more than one type of circuit</p> <p>Provides detailed log book evidence of sketches which are fully labelled with, annotations, and written explanations of sequential development of the design. Modifications are accompanied by</p> |

| | | | written reasons |
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| <p>Communication</p> <p>Presenting Ability to make an oral presentation to peers</p> | <p>Describes the making of the toy, occasionally using scientific language</p> <p>Generally speaks clearly. Visual aids are ineffective or lacking</p> | <p>Explains, using appropriate scientific language, the process of producing the toy, the decisions taken and the underlying reasons</p> <p>Speaks clearly, at an appropriate volume, and uses eye contact and appropriate visual aids such as a PowerPoint or a poster</p> | <p>Explains clearly and in detail, using appropriate scientific language, the process of producing the toy. Describes the problems encountered and explains the solutions</p> <p>Effectively uses voice, body language and visual aids to engage the audience</p> |