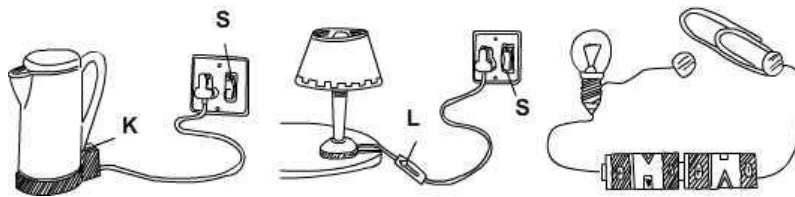


Grade 8 Technology Worksheet

Switches

AND-logic

- 1.1 What are the two numerical values used in a truth table? [2 marks]
- 1.2 Study the pictures of three devices which make use of And-logic. Answer the questions which follow:



- 1.2.1 How many switches does each circuit have? [3 marks]
- 1.2.2 What is controlling the torch bulb? [2 marks]
- 1.2.3 What should be done to switch the bedside lamp on? [3 marks]
- 1.2.4 What is the difference between the control of the bedside lamp and that of the torch? [2 marks]
- 1.2.5 Would the water in the kettle boil if only switch S is switched on? [2 marks]
- 1.2.6 Does the kettle have the same control as the bedside lamp? [2 marks]
- 1.2.7 Name four other electrical devices which work on the same control logic. [4 marks]

[20 marks]

Grade 8 Technology Worksheet

Suggested Solutions

| Question number | Possible marks | Answers |
|-----------------|----------------|--|
| 1 | 2 marks | 1.1 0 and 1 |
| | 3 marks | 1.2.1 Kettle and bedside lamp: 2, torch bulb: 1 |
| | 2 marks | 1.2.2 The paper clip and drawing pins |
| | 3 marks | 1.2.3 The rocker switch against the wall should be on, and the sliding switch should be slid up. |
| | 2 marks | 1.2.4 The bedside lamp has two switches which need to be on, while the torch only has one switch to turn on. |
| | 2 marks | 1.2.5 No, both S and K must be switched on. |
| | 2 marks | 1.2.6 Yes, both need to be switched on at the wall socket and at the device. |
| | 4 marks | 1.2.7 Electric stove, vacuum cleaner, computer, television etc. |

[20 marks]