



PEAKHURST CAMPUS

SCIENCE

Year 9 2018

Electricity Test

Date: 9SY – Thursday 15th March 2018, Ms Taiamoni

9SI – Thursday 15th March 2018, Ms Taiamoni

9SG – Monday 12th March 2018, Ms Baldassaerre

9SV – Monday 16th March 2018, Ms O'Brien

Weighting: 10%

Task information:

This is a test of the topic Electricity. It covers the knowledge and skills covered in the topic.

The Electricity tick-summary sheet on the reverse of this page outlines the areas of both knowledge and skills covered. Use this to help prepare for the test.

The test will be done partly on computer. You must have logged on to Moodle before the day of the test.

You must also know your school internet login name and password.

Equipment: you need to bring your own equipment to the test. You will need a pen, pencil, rubber, ruler, and calculator.

No borrowing of any equipment will be allowed during the test.

Each student must bring their class workbook for marking. Books will be awarded zero for the topic if it is not handed in on the date of the test.

Absence: If you are absent on the day of your test, you must bring a note from a parent/guardian explaining your absence and report to your Science teacher on the day you return to school. A suitable time will then be organised for you to do the test.

ELECTRICITY

Tick the box when you can:

- ☐ 1. describe circuit electricity as a flow of electrons through a conductor;
- ☐ 2. draw symbols for components including ammeter, voltmeter, resistor, globe, switch, wire, power pack;
- ☐ 3. draw, interpret and set up circuit diagrams;
- ☐ 4. read and wire correctly voltmeters and ammeters;
- ☐ 5. voltage, current, resistance - define each, list units and symbols;
- ☐ 6. describe voltage, current and resistance in terms of energy applied, carried and dissipated;
- ☐ 7. measure voltage and current in a circuit, tabulate and graph;
- ☐ 8. use $V=I \times R$ to describe the relationship between voltage, current and resistance;
- ☐ 9. compare the characteristics and applications of series and parallel circuits;
- ☐ 10. outline some safety features used in circuits such as fuses, circuit breakers and earth wire.
- ☐ 11. describe the current method used to produce most of Australia's electricity and assess the impact of this on the environment;
- ☐ 12. describe one alternative method of electricity generation and assess its impact on the environment;
- ☐ 13. For the method of electricity generation chosen in 11, outline what different branches of science have been involved.

