Experiment C: Electrical Circuits (age 11 – 14) – Parallel Circuits

Experiment Objective:

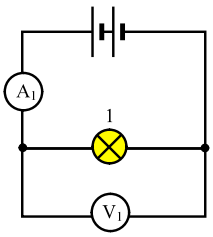
The aim of this experiment is to investigate the current and voltage in parallel circuits.

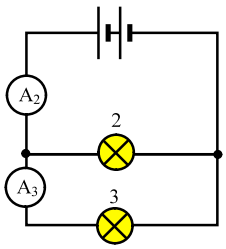
Classroom Activity:

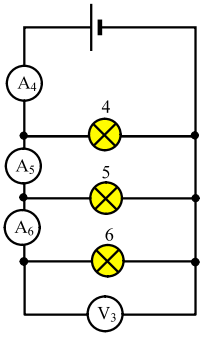
- Set up the circuit shown in the diagram 1 and record meter readings.
- Set up the circuit shown in the diagram 2 and record meter readings.
- Set up the circuit shown in the diagram 3 and record meter readings.

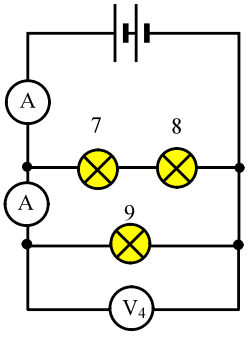
As an extension:

- Set up the circuit shown in the diagram 4 and record meter readings.









The results are recorded in the table.

Ammeter	Ammeter reading (A)	Voltmeter	Voltmeter reading (V)
1		1	
2		2	
3		3	
4		4	
5			
6			
7			
8			
9			

Resource materials needed:

Circuit board; Bulbs (3); Batteries (3); Multimeters (3) & Leads. The meters can be moved round within any of the circuits.

Expected outcomes:

By the end of the session students will understand the basic principles of parallel circuits and the relationship between current and voltage in parallel circuits.

Linked Resources

www.twothirtyvolts.org

Electrical Circuits 11-14 Student Revision Notes, Revision Quiz & Lesson Plan