

# Syllabus

## PLAR Prep – Science – Electricity (Task 4)



**1 Units:** 5 lessons, 1 video

**Estimated time:** 5-9 hours

**OALCF Levels:** A1.2, A2.2, A3

**Suggested Milestones:** 3 or 4, 10 or 11, 14

### Course Overview

In this course, you will study electricity and magnetism. You will learn how to calculate energy consumption and cost.

### Unit 1: (5 lessons)

#### Electricity and Magnetism

(40 slide tutorial and mastery test)

In this lesson, you will study the strength of forces created by electric charge and by magnets.

#### Electric Circuits

(33 slide tutorial and mastery test)

In this lesson, you will identify series and parallel circuits and explain how current flows through them.

#### Electric Current

(24 slide tutorial and mastery test)

In this lesson, you will define conventional electric current and relate it to the direction of electron flow in a conductor and the potential difference across the circuit. You calculate the electric power of a circuit.

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### **Course Activity: Conserving Electricity at Home**

(8 slide tutorial) 100 marks

Your teacher will score this activity using the scale of points provided.

In this activity, you will calculate how much electricity you use in your home and propose ways to reduce the amount. In the process, you will apply scientific ideas to develop an explanation for real-world events.

### **AC and DC Current**

(26 slide tutorial and mastery test)

In this lesson, you will study how alternating current (AC) and direct current (DC) both produce electricity, but differ in how they produce it.

### **Video: Slips and Falls**

(3:16 minutes)

In this video, you learn how fuses and circuit breakers protect a home.