Physics: Power Output

Purpose: To determine the work done and power output for a simple activity.

Problem: For example, what is my average power output while sprinting 25.0 meters? What is my power output while climbing stairs?

Prediction: According to my best guess, my power output will be closest to

a) 60 W light bulb
b) 150 W stereo
c) One horsepower (1 hp = 746 W)
d) 1.0 kW toaster
e) 4.0 kW clothes dryer

Experimental Design:

Write a brief experimental design outlining your plan to solve the problem(s).

Materials:

- measuring tape
- mass scale
- stopwatch
- masking tape

Evidence/Analysis:

Create a table to display all measured and calculated quantities involved in the laboratory investigation.

1. Provide a sample calculation where appropriate.
2. Answer the problem in sentence format.

Marking Rubric (Optional – as task may not be collected for assessment)

1.	Experimental design is clear and appropriate for task	(2)
2.	Evidence is neatly recorded and to the correct precision and units.	(2)
3.	Speed, kinetic energy, potential energy and power are correctly calculated.	(3)
4.	Sample calculations communicate full process and rounded answers.	(2)
5.	Answer to problem is communicated clearly in sentence format	(1)
	Total	(10)