Electricity and Energy Assessment

Student Name: _____	**Class:** _____
Student ID: _____	**Date:** {{DATE}}

Assessment Details

Duration: 45 minutes	**Total Marks:** 100
Topics Covered:	• Electricity • Conductors and Insulators • Uses of Electricity in Everyday Life

Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Calculator use is permitted except where stated otherwise.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section A: Multiple Choice Questions [30 marks]

Question 1 **[5 marks]**

What is electricity?

A) A type of energy that powers devices

B) A type of material that conducts heat

C) A type of wave that travels through space

D) A type of force that moves objects

Question 2 **[5 marks]**

Which of the following materials is a good conductor of electricity?

A) Wood

B) Metal

C) Plastic

D) Fabric

Question 3 **[5 marks]**

What is the primary use of electricity in homes?

A) To power tools

B) To light homes

C) To heat water

D) To cook food

Section B: Short Answer Questions [40 marks]

Question 4 **[10 marks]**

Describe the difference between a conductor and an insulator. Provide an example of each.

Question 5 **[10 marks]**

Explain how electricity is used in your daily life. Provide at least two examples.

Section C: Diagram Labeling [20 marks]

Question 6 **[20 marks]**

Label the following components in the simple electric circuit diagram:

- Battery
- Wire
- Light bulb
- Switch

Section D: Interactive Simulation [10 marks]

Question 7 **[10 marks]**

Design and build a simple electric circuit using the following materials:

- Battery
- Wire
- Light bulb
- Switch

Section E: Reflection and Self-Assessment

Question 8

Reflect on your learning and answer the following questions:

1. What did you learn about electricity and energy during this assessment?
2. What challenges did you face, and how did you overcome them?
3. What do you think you need to work on to improve your understanding of electricity and energy?

Marking Guide

Multiple Choice Questions (30 points):

- 1 point for each correct answer

Short Answer Questions (40 points):

- 10 points for each question
- Assessment criteria:
  - Accuracy and completeness of answer (5 points)
  - Clarity and organization of answer (3 points)
  - Use of examples and supporting details (2 points)

Diagram Labeling (20 points):

- 5 points for each correct label

Interactive Simulation (10 points):

- 5 points for successfully building a working circuit
- 5 points for demonstrating an understanding of how electricity flows through the circuit

Conclusion

Congratulations on completing the Electricity and Energy assessment! Remember to review your results and reflect on your learning to improve your understanding of electricity and energy.