

UNIT 4: The Characteristics of Electricity

Chapter 10: The Night Sky

10.1: Static Energy and Charges

- Charging by friction
- Insulators and Conductors
- Grounding: Removing Static Charges

10.2: Charging by Contact and by Induction

- Detecting Charges
- Charge by Contact
- Charge by Induction

Chapter 11: Electric Circuits

11.1: Cells and Batteries

- Electric and Hybrid Vehicles
- Voltaic Cells
- From Cells to Batteries
- Types of Cells
 - Dry Cells, Wet Cells, Primary and Secondary Cells
- Fuel Cells
- Solar Cells

11.2: Electric Circuits: Analogies and Characteristics

- Electric Circuits
- The Movement of Electrons
- Electrons Flow in One Direction in a Circuit
- Electric Current
- Electrical Resistance
- Loads
- Potential Difference (Voltage)

11.3: Measuring the Properties of Simple Circuits

- Circuit Diagrams
- One pathway or Multiple Pathways
- Measuring Current and Potential Difference

11.4: Measuring Electrical Resistance

- Ohms Law

Chapter 12: Generating and Using Electricity

12.3: Meeting the Demand for Electricity

- Meeting the Minimum Demand

12.4: Sustainable Sources of Electricity

- Renewable Sources of Energy

Review Exercises:

- Chapter 10 Review: pg.432 – 433 #1-12, 17, 18
- Chapter 11 Review: pg. 480-481 # 1- 16, 18, 19, 20, 26
- Chapter 12 Review: pg.518 – 519 #1 – 8, 22

Unit Review: pg. 524-526 #1-3, 5, 7-11 (complete all questions that apply to concepts mentioned above)