

Unit 5I
Electrical Power
Note-Taking Guide TEACHER

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas, and big questions.

Objective(s):

- *Understand how current and voltage affect the amount of electrical power consumed by both an individual resistor and a circuit composed of multiple resistors.*
- *Relate the amount of power consumed by a circuit to the rate at which electrical energy is used.*

Notes:

During the video segment, use words, phrases, or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"

Answer the following.

1. What are the three main sources of electrical power in the United States?

coal, natural gas, nuclear

2. What unit is used to measure power?

Power is measured in watts (W).

3. Use an equation to explain the relationship between electrical power, potential difference, and current.

$$P = IV$$

4. How can you tell how much power one light bulb is emitting compared to others of the same type?

Assuming like types of bulbs, the brighter a light bulb, the more power it is emitting.

5. How are LED bulbs more efficient than traditional incandescent bulbs?

LED bulbs shine as brightly as incandescent bulbs while using less energy,

thereby making them more efficient.

6. What unit is used to purchase electrical energy from a power company?

Electrical energy is purchased in kilowatt-hours (kWh).