Main Ideas, Key Points, Questions:

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

Objective(s):

- Understand how and why charges move in a conductor.
- Learn electrical circuit concepts of voltage, current, and resistance.

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. Why do we say that in metal conductors, electrons move but protons don’t?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. What is it that creates ‘pressure’ in a wire, pushing charge along? (Circle one)
   a. Current
   b. Resistance
   c. Voltage
   __________________________________________________________

3. Current in a circuit flows (Circle one).
   a. from higher to lower potential.
   b. along an equipotential line.
   c. from lower to higher potential.
   d. perpendicular to the electric field.
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

4. Electrons in a live wire move really slowly - you could easily outwalk them! But when you turn on a light switch, the bulb instantly lights up. Why?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

5. When a wire gets hot, what is happening microscopically that causes this?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

6. What three quantities does Ohm’s Law connect together? State Ohm’s Law in your own words.
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________