Unit 5A
Introduction to Electricity
Note-Taking Guide

Main Ideas, Key Points, Questions:

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

Objective(s):

- Develop conceptual and hands-on understanding of electric charge and force.
- Understand static and current electricity, founded on knowledge of atomic structure.

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. Draw a picture of an atom. Include protons, neutrons, and electrons.

2. All the mass we ever encounter is positive - nothing weighs less than zero. What makes us think charge is different - that there are both positive AND negative charges?

3. Say we have two charged objects. Name two things we can do to decrease the electric force between them.

4. When objects exchange charge, why do we say it’s the negative charges that move and not the positive?
5. The charged conductors below come in contact. Draw how the charges would spread out once the conductors are touching.

6. There are 4 fundamental forces. What are they and how do they rank, weakest to strongest?

7. You are handed two mystery materials, and told to find out which materials accepts negative charges more easily. A positively-charged, helium-filled balloon is tied to a tabletop with a string a meter long. What’s a simple experiment you could run to find out which material accepts electrons more easily?