

Name:

Date:

Class:

# Exploring Capacitors PhET Worksheet

## Instructions

- Open the following PhET simulation: [Capacitor Lab: Basics](#).
- Check all of the boxes so you can see all available data.
- Supply voltage to the capacitor by sliding the battery control.
- Answer the following questions.

## Part 1: Charging the Capacitor

1. In which direction do the electrons flow?
  
  
  
  
  
  
  
  
  
  
2. Do the electrons flow forever? Explain.
  
  
  
  
  
  
  
  
  
  
3. What happens to each plate as the capacitor charges?

## Part 2: Changing Plate Distance and Area

**Instructions:** Now change the separation distance and plate area. Answer the following questions.

4. What effect does changing the separation distance have?
  
  
  
  
  
  
  
  
  
  
5. What effect does changing the plate area have?



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### Part 5: Real-World Applications

11. Based on your observations, what are some potential uses of capacitors? Where might you see them in everyday life?