

Name:

Date:

Class:

## Analysis and Reflection Worksheet **Answer Key**

### Analyzing and Interpreting Data

Answer the following questions.

1. Looking back at your data, identify how each parameter affected the capacitance. You may use the sentence starters below or write your own on the back.
  - When the area of the electrodes increased, the capacitance **increased**.
  - When the **distance (separation) between the plates increased**, the capacitance **decreased**.
  - When **the dielectric material had a higher dielectric constant (permittivity)**, the **capacitance increased**.
2. Construct an explanation why you think each of these changes had its corresponding effect on capacitance.
  - I think increasing the area caused **more charge to be stored on the plates**, which led to the capacitance **increasing**.
  - I think **decreasing** the distance between the metal plates **caused the electric attraction between opposite charges to increase**, which led to the capacitance **increasing**.

### Reflection

Answer the following question.

3. If there were any other things you changed, you can include your explanations below:  
**Responses will vary.**