

Name:

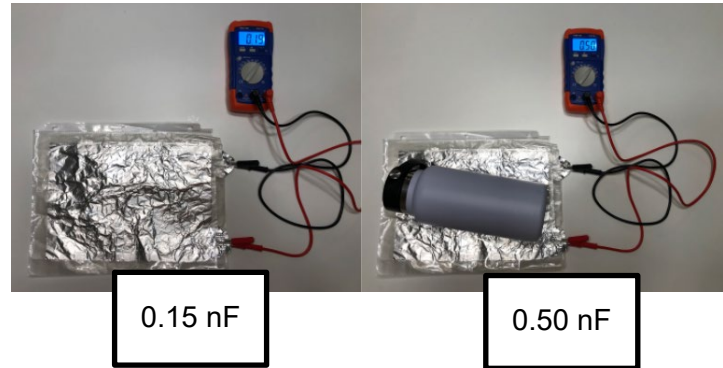
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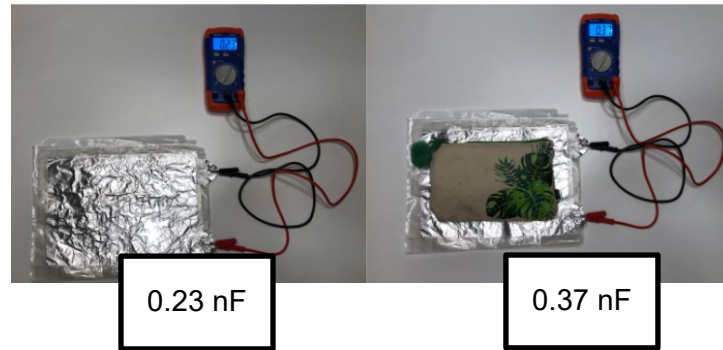
Practicing Measuring Capacitance / Testing Your Sensor Sheet

Directions: The diagrams below show different objects being tested on a capacitance sensor. Use the digital multimeter readings to complete the calculations and then answer the questions.

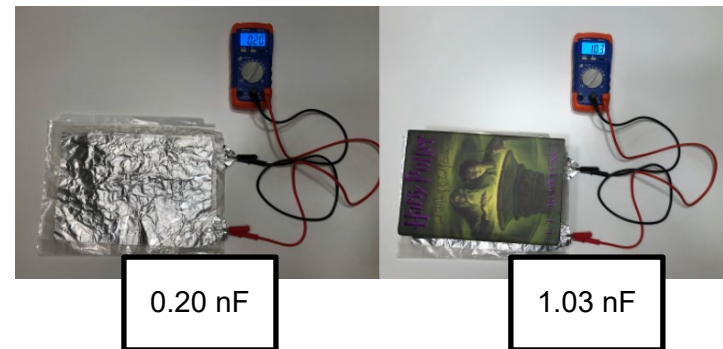
The Water Bottle	
Initial Capacitance (nF)	_____ nF
Final Capacitance (nF)	_____ nF
Capacitance of Object (nF) (Final Capacitance – Initial Capacitance)	_____ nF - _____ nF = _____ nF



The Pencil Case	
Initial Capacitance (nF)	_____ nF
Final Capacitance (nF)	_____ nF
Capacitance of Object (nF) (Final Capacitance – Initial Capacitance)	_____ nF - _____ nF = _____ nF



The Stack of Books	
Initial Capacitance (nF)	_____ nF
Final Capacitance (nF)	_____ nF
Capacitance of Object (nF) (Final Capacitance – Initial Capacitance)	_____ nF - _____ nF = _____ nF



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According to your calculations on the last page, answer the following questions:

1) Which object had the least capacitance? _____

2) Which object had the highest capacitance? _____

Your sensor does NOT measure pressure, but capacitance and pressure are related. As capacitance increases, pressure also increases. Based on this information...

3) Which object do you think exerts the least pressure? _____

4) Which object do you think exerts the most pressure? _____

5) Explain how you decided to assign the least and most pressure to the objects in #3 and #4:

Testing YOUR Sensor Directions: Choose one to three objects from your classroom to test on your capacitance sensor and record your data below:

Object	Initial Capacitance (nF)	Final Capacitance (nF)	Capacitance of Object (nF) Final Capacitance – Initial Capacitance

Object tested with the most capacitance: _____

Object tested with the least capacitance: _____

