Name:	
Lab Partner:	_
Date:	

## **Get Energized! STEM Kit Science Notebook**

The NSEOC highly recommends students keep a science notebook for ALL science classes, but if this is not possible, all of the Science Notebook prompts from the Get Energized! STEM Kit booklet are included with space for students to write, draw or sketch as needed. The page numbers reference the page in the booklet the original prompt can be found.

## Part 1: Make a Rechargeable Battery

Page 3 – What do you think it means to test something *systematically*?

Page 7 & 8 - Use the following data table to record the voltage given by all of the washer combinations. The vertical axis represents metals placed on the red (positive) wire and the horizontal axis represents metals placed on the black (negative) wire.



(Be sure to indicate if the voltage is negative by using a minus sign.)

Name:	
Lab Partner:	
Date:	

Page 9 - Do you notice a pattern in your data table? If so, explain. What metal combinations resulted in the highest voltage reading? Lowest?

Page 10 - Did you get the same voltage as you did with the jar of electrolyte (refer to your date table). If not, what could affect the voltage reading and produce a different result?

Page 12 - Draw and label a quick sketch of the washer combinations you chose to use to light your LED, including the voltage given by each cell.

Name:		
Lab Partner:		
Date:		

## Part 2 – Make a Solar Cell

Page 15 – Design a table to record and compare the different types of light, distance and angles to the current readings.

Page 16 – If the washers are tilted perpendicular to the angle of light, you will get a higher current reading. In fact, most solar panels are often tilted on purpose. Why do you think that is?

## **Part 4 – Recharging the Battery**

Page 21 – Using the diagrams from the booklet and what you have learned, explain how rechargeable batteries and solar cells work in your own words.