Post-Activity Quiz

1. What role does the fruit or vegetable play in the battery?

2. What roles did the metals, e.g. copper penny, aluminum and/or galvanized zinc scree or nail play in the battery?

3. Describe which battery configuration produced the highest power and describe why it produced more power than the other designs.

4. What is the relationship between the output current and the distance between the anode and cathode?

5. Give the definitions of an anode and cathode. Which metals in your experiments were anodes or cathodes?

6. Draw a diagram to illustrate the circuit design that produced the maximum amount of power.
7. Draw a diagram of the circuit that produced the correct amount of voltage and current to turn on the LED light bulb.

8. What are independent and dependent variables?

9. In the following scenarios, identify the independent and dependent variables...
   
   a. Cost of pizza and number of pizza toppings.
   b. How fast the grass grows and how much rain we get.
   c. The number of problems missed on a test and your grade on the test.
   d. How long I talk on my cell phone and the number of minutes on my calling plan.
   e. The amount of money I make and the number of hours I work.
   f. The number of cakes sold in a bake sale and the amount of money made.
10. You are given the following data on the relationship between John’s test score and the number of hours he studies.

<table>
<thead>
<tr>
<th>Number of Hours John Studies</th>
<th>John’s Test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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</tr>
<tr>
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<td>80</td>
</tr>
<tr>
<td>1.0</td>
<td>85</td>
</tr>
<tr>
<td>1.5</td>
<td>90</td>
</tr>
<tr>
<td>2.0</td>
<td>95</td>
</tr>
<tr>
<td>2.5</td>
<td>100</td>
</tr>
</tbody>
</table>

a. What are the independent and dependent variables?
b. How are the independent and dependent variables related? (Be precise)