Introductions: A.S.U. Science

What is the name of one of the A.S.U. presenters?
__________________________________________________________________

What is his or her subject major?
__________________________________________________________________

What are his or her aspirations?
__________________________________________________________________

Some Kinds of Energy You Will Learn About Today

<table>
<thead>
<tr>
<th>Light Energy</th>
<th>Mechanical Energy</th>
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<td>Sound Energy</td>
<td>Electrical Energy</td>
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<tr>
<td>Chemical Energy</td>
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Light Powered Radio Demonstration

Complete the following three sentences:

1. the [solar] cell converts [ ] energy into [ ] energy

2. the lamp emits [ ] energy

3. the [radio] converts [ ] energy into [ ] energy
Muscle-Powered Lightbulb

Complete the following two sentences

1. the __________ converts __________ energy into __________ energy

   ![Diagram of a battery with an arrow indicating conversion](image1)

2. the __________ converts __________ energy into __________ energy

   ![Diagram of a light bulb with an arrow indicating conversion](image2)

3. Where is the energy STORED to make the light work in this case?

   ______________________________________________________________________

4. What kind of energy is STORED?

   ______________________________________________________________________

Complete the following sentence

5. the __________ converts __________ energy into __________ energy

   ![Diagram of a generator with an arrow indicating conversion](image3)

6. Where is the energy STORED to make the light work in this case?

   ______________________________________________________________________

7. What kind of energy is STORED?

   ______________________________________________________________________
Light Without Electricity Demonstration
Complete the following two sentences

1. the ___ chemicals ___ contain
   _______ energy

2. the ___ chemical ___ energy is
   converted into
   _______ energy

3. Where is the energy STORED to make the light work in this case?

4. What kind of energy is STORED?

5. Give TWO examples of where you might expect to see glowing chemicals like these.

__________________________      ____________________________
Experiments with Glowing Solutions

You will now do your own glowing experiments, mixing different volumes of the two solutions. Your goal is to see how long you can make the mixture GLOW!! Start by mixing equal volumes of each solution. After that, experiment with your own volumes of each solution.

FOLLOW THESE INSTRUCTIONS CAREFULLY!!

1. Measure the BLUE solution.  
   USE A NEW MEASURING CUP

2. Measure the CLEAR solution  
   REUSE THE SAME CUP

3. WAIT UNTIL INSTRUCTED  
   then add the CLEAR to the  
   BLUE solution

4. Pour the solution into  
   the waste container  
   REPLACE THE LID
Use this chart to keep careful SCIENTIFIC records of your experiments!

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1. What volumes of the solutions gave the longest glow time?
Other Forms of Energy

1. Give one example of energy conversion in the classroom

_________________________________________________________________

2. Where does all of our energy on earth come from?

_________________________________________________________________

3. Give an example of how you might conserve energy at home.

_________________________________________________________________

Question for the ASU students?