

Name: \_\_\_\_\_

Spotlight on Photovoltaics & Fuel Cells: A Web-based Study & Comparison  
Student Handout

1. Fill in the chart below on the *differences* between Fuel Cell versus a Photovoltaic Cell.

<b>Differences</b>	
Fuel Cell	Photovoltaic Cell

2. Fill in the chart below on the *similarities* between a Fuel Cell versus a Photovoltaic Cell.

<b>Similarities</b>	
Fuel Cell	Photovoltaic Cell

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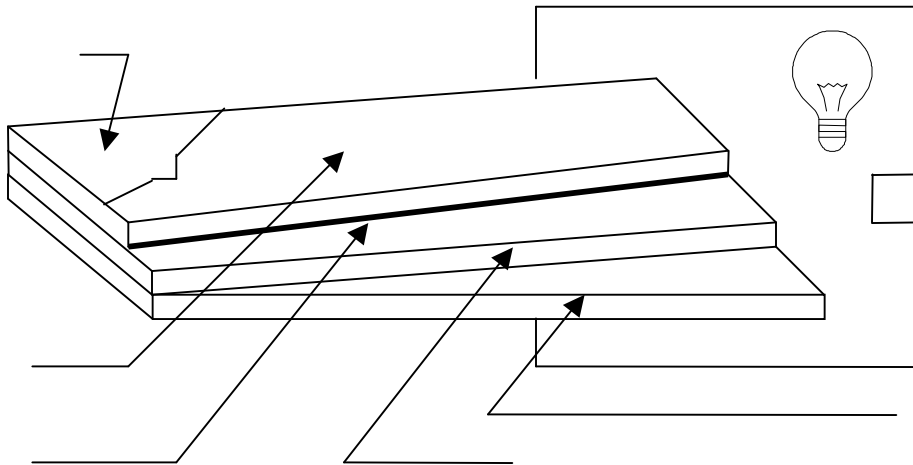
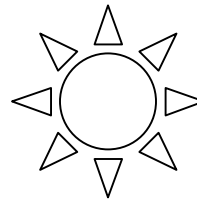
3. Fill in the charges in the following chart with Charge (+ or -) :

	<b>Fuel Cell</b>	<b>Photovoltaic</b>
<b>Electron</b>		
<b>Proton</b>		
<b>Cathode</b>		
<b>Anode</b>		

4. What are the biggest differences in how a fuel cell and a photovoltaic cell work?

5. Label the following schematic of a photovoltaic. Please include charges where they are needed. Label the current also and use an arrow to show which way the current is following.

Diagram of a Photovoltaic



6. Give examples of why these two technologies are considered types of “clean energy.” What are the limitations of using the two technologies?

7. The United States government offers tax incentives and federal funding for people who utilize “clean energy” sources. For homework find a source that awards either a tax incentive or grant for using renewable energy. Write a paragraph or two about how your family might benefit from such an award. (A great place to start on the Internet is: <http://www.dsireusa.org/>.)