

Portable Power Technology – Alternative Energy Sources

Acknowledgements: Developed by Laura Marmolejo, Faculty of Austin Community College, Austin, Texas

Time Required: 3 hours

Equipment & Tools

- Computer with Internet Connection
- Standard browsing (web surfing) capabilities

Team or Individual: This is an individual activity.

Learning Objectives

1. Use the Internet to gain a greater understanding of the operation of a fuel cell.
2. Locate, gather, and organize information on fuel cell applications.

Performance and Task Procedures:

1. Access the Internet and go to the website: www.howstuffworks.com.
2. Type in “how fuel cells work” in the search window and hit “go.”
3. You should locate 14 pages of information on fuel cells and how they work. Read through the presentation. Pay special attention to the application of fuel cells.
4. Once you have reviewed the material, locate at least three different applications in which fuel cells are used today (not as a prototype). Include one vehicle which uses fuel cells. You can use the links found in the www.howstuffworks.com website or use a search engine such as Yahoo.com or Google.com.
5. Enter the information into the table at the end of this drill down.
6. Answer the drill down questions at the end. If further information is needed, continue to use the Internet to find the information requested.

Deliverables:

- Completed table on fuel cell applications and websites accessed
- Answers to the drill down questions

Scoring or Grading Criteria:

The criteria for grading the student, is left to the discretion of the instructor.

**Fuel Cell Applications:**

	Application #1	Application #2	Application #3
Website			
Application or use			
Fuel Cell Manufacturer			
Location (city or state)			
Length of fuel cell use			
Advantages			
Disadvantages			

DRILL DOWN QUESTIONS

1. Name two advantages associated with the use of fuel cells.
2. Name two problems associated with the use of fuel cells.
3. What does a reformer do?
4. Name three types of fuels currently used by fuel cells
5. Is hydrogen safe to use? Why or why not?
6. Name two other types of fuel cell technologies

- 4