

Eco=Kids Explore Hydrogen Fuel Cells

With hosts Andrea and Michael and the help of on-screen vocabulary as well as computer generated images, viewers are given a basic understanding of what a fuel cell is and how it works. A short history of the fuel cell is detailed using archival photos and film footage. Our hosts then visit the National Renewable Energy Laboratory (or NREL) to see how hydrogen fuel cells are being developed and improved—especially for use in cars. An explanation of how a car is refueled is shown. Our hosts show viewers how, on a larger scale, how energy from fuel cells can become a major fuel for automobiles.

Vocabulary used in this program:

- fuel cell
- catalysis
- anode
- cathode
- electrolyte
- nonrenewable
- membrane electrode assembly
- fossil fuels
- pollution
- alternative fuels
- catalyst
- polymer
- platinum

Questions:

1. What are the three parts of a fuel cell and how do they work?
2. Why would using hydrogen fuel cells be a good idea to power automobiles?
3. What are the problems currently associated with using fuel cells to power automobiles?

For more information to help understand hydroelectric fuel cells:

How Stuff Works: Alternative Fuels: Fuel Cells

<http://auto.howstuffworks.com/fuel-efficiency/alternative-fuels/fuel-cell.htm>

U.S Dept. of Energy: Fuel Cell Technologies Program

<http://www1.eere.energy.gov/hydrogenandfuelcells/education/educators.html>