

## Eco=Kids Explore Electric Cars

Our hosts, Michael and Andrea explain what electric cars are and give viewers a short history of electric cars using archival footage, photos, images and computer generated diagrams. Because of pollution, alternative fuel cars are being explored, including electric cars. A visit to the NREL (National Renewable Energy Laboratory) gives students an overview of the issues surrounding electric cars and how scientists are perfecting cars using electricity. The 'at home' experiment shows how a lemon can be used as a battery. Summing up the disadvantages and advantages of using electricity allows students to understand the issues surrounding electric cars.

Vocabulary used in this program:

- electric car
- internal combustion engine
- hybrid car
- battery
- thermal
- lithium ion battery
- photovoltaic refueling station
- emissions
- electrolyte
- regeneration

Questions:

1. What are the advantages to using electricity to power cars?
2. What are the disadvantages to using a car powered by electricity?
3. Why did America use internal combustion engines for most of the last 100 years, when the electric car had been invented?
4. How does an electric car work?
5. How are engineers trying to perfect the electric battery for cars?
6. What are the differences between an electric car and a combustion engine car?

For more information to help understand electric cars:

How Stuff Works: Electric Cars

<http://auto.howstuffworks.com/electric-car.htm>

U.S. Dept. of Energy: Alternative Fuels and Advanced Vehicles Data Center

<http://www.afdc.energy.gov/afdc/vehicles/electric.html>