

## Eco=Kids Explore Ethanol

With today's high fuel costs, it is time to start looking beyond petroleum and into renewable resources to power our vehicles. Ethanol is a clean-burning fuel derived from plants—primarily corn. By mixing gasoline with ethanol, we can extend our fuel supply. Join us as the Eco Kids, Katrina and Christian, explore the production of ethanol and highlight the importance it holds in the Green Movement. A short history of how ethanol power has been used to power vehicles begins this exploration. There is a detailed look into the process of how an ear of corn goes from the field to fuel in a car. Indy car driver, Ryan-Hunter Raey helps viewers understand this process and highlights the reasons all Indy cars use ethanol for their fuel.

### Vocabulary used in this program

fossil fuels  
green power  
combustion energy  
dehydration  
enzyme  
fermentation

### Questions

1. What are the positive reasons to use ethanol instead of gas to power our cars?
2. Corn is the main crop used in the United States to make ethanol, but other plants like sorghum, wheat and barley can be used. What makes a plant a good source for ethanol? (grown in abundance, easy to grow, has sugar in it)
3. Ethanol is blended with regular gas to power 'regular cars'. How does this blend help the environment? (helps save fossil fuels by not using as much)

### Activity

Many products other than fuel use ethanol or ethyl alcohol. Take a survey at home of products you have in the kitchen, the bathroom, in the garage. List as many of these products as you can.

For more information to help understand ethanol:

Lesson Plan: Automobile Choices and Alternative Fuels

[http://www.pbs.org/newshour/extra/teachers/lessonplans/science/ethanol\\_interactive.htm](http://www.pbs.org/newshour/extra/teachers/lessonplans/science/ethanol_interactive.htm)

EIA Kids Page: Ethanol Timeline

<http://www.eia.doe.gov/kids/history/timelines/ethanol.html>

