

NOVA: The Car of the Future

Global Issues

hydrogen fuel

1. What type of emissions do hydrogen fuel cells create?
2. What are the dangers of using hydrogen as a fuel?
3. What would be the challenge for the United States if it were to convert to hydrogen-fueled vehicles?

ethanol fuel

4. Why do critics claim it takes more energy to make ethanol than the amount of energy you get out of it?
5. What is cellulosic biomass, and why is it important in the quest to use ethanol as an alternative fuel?
6. How are bacteria involved in the production of ethanol?

vehicle engineering

7. How much of the energy stored in gasoline is lost through friction?

8. Does a car have to be heavy in order to be safe? Explain.

9. Why would it be difficult for large automakers to produce cars with carbon-fiber bodies?

hybrid and electric cars

10. How does a hybrid car work?

11. How can solar energy help fuel hybrid cars?

12. Name one drawback of all-electric vehicles.