

Why Hydrogen Cars Will Be Tesla's Biggest Threat



A. Thinking Questions:

1. What types of electric cars have you seen in the last few months?
2. Would you consider buying an electric vehicle in the future?
3. What are the benefits of driving an electric vehicle over a regular gas-powered car?

B. Word Definition: Connect the word with its correct meaning:

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| range | charge a battery again |
| fuel | does not release harmful gases |
| recharge | structures and facilities eg. roads, power supplies |
| Zero-emissions | gives energy to cars eg. gasoline, hydrogen cells |
| Infrastructure | uses battery to power the car |
| Battery Electric Vehicles | use hydrogen and oxygen to power the car |
| Fuel Cell Electric Vehicle | how far a car can go |

C. Video Questions: These questions test your understanding of the video.

1. Who is the founder of Tesla? Elon Musk
2. What is the most abundant resource in the universe? Hydrogen
3. What are some fuel cell vehicles available today? Toyota Mirai, Honda Clarity, and Hyundai Nexa.
4. What percent of the Electric vehicle market owns a Tesla in the US? 60%.

D. Advanced Questions: These questions make you think harder or apply what you know.

1. What are some reasons why drivers haven't switched to electric vehicles? First, they take a long time to recharge. Second, they have a limited range; therefore, you must find a charging station to ensure that you can keep going with your car. Finally, electric cars cost more than a gas-powered car and the battery may also need to be replaced after a few years of use.
2. What are some benefits of a hydrogen-powered car? Hydrogen is filled at a station like gasoline. They also typically have long ranges eg. 300 miles per tank. Finally, they only have water as a by-product; therefore, they emit no harmful gases to the environment, unlike gasoline-powered cars.
3. Why are there so few hydrogen fuel-cell cars on the road? Only a few hundred FCEVs are made every year. With a production rate this low, they are very expensive to manufacture. In addition, there only about 44 hydrogen stations in the US which makes it difficult to refuel your car. In comparison, there are over thousands of electric charging stations, which makes it a lot more convenient.