

Film Title and Release Date: *Fuel Technology - Transportation Innovations (2005)*

Length of Film in Minutes: 15 minutes

Film Genre: Non-fiction

Reviewer Name and Grade: Daniel Liang, 8th grade

Date Reviewed: 3/31/2021

In the documentary “Fuel Technology - Transportation Innovations”, it is explained that automobile manufacturers are testing new types of engines and alternative types of fuels that will run more efficiently on cleaner resources. Alternative fuels are made from resources other than petroleum. Due to the possible environmental disasters associated with oil drilling and the potential harm oil is causing to the environment, there is an increasing demand on less threatening and cleaner fuels. Some scientists state that we have used more than 50% of the oil on Earth. If this is the case, then it will become increasingly expensive and difficult to extract the rest. Hydrogen may be our best bet for the future of alternative fuels. Hydrogen can be used to power fuel cells, where it is combined with atmospheric oxygen to generate electricity with water as a byproduct. Fuel cells are electro-chemical devices that convert a fuel’s chemical energy into electrical energy. The only emissions for fuel-cell driven vehicles are heat and water. Also, hydrogen can be produced from renewable resources from solar power, hydropower, wind power. However, hydrogen contains much less energy than gasoline or diesel by volume. Another possible alternative that emits no tailpipe pollutants is the electric vehicle. It has an electric motor which is powered by rechargeable battery packs, and is very energy efficient. These motors can convert about 75 to 80 percent of the chemical energy from batteries to power the wheels, as opposed to the 20 percent of the energy stored in gasoline with the traditional internal combustion engine. These vehicles can accelerate more quickly from rest than cars with the traditional internal combustion engines. However, electric vehicles still have disadvantages. They can take a long time to recharge and battery packs can be very expensive and may need to be replaced several times during the life of the vehicle. Also, these batteries are heavy, and take up considerable amounts of space.

How did you find the film on Kanopy (by title search, subject search, casual browsing, etc.)?

I found the film on Kanopy through subject search.

Did the plot (for fictional movie) or presentation of information (for documentary) keep you interested?

The presentation of information kept me very interested. The information presented was very advanced and informative and I really liked it. For example, the electric vehicle seemed like a very advanced, yet extremely interesting, idea. The electric car could even accelerate more quickly from rest than cars with the traditional internal combustion engines! I thought that was very interesting.

Was the pace of the film too fast, too slow, or just right?

The pace of the film was just right. The narrator spoke very clearly.

What grade level(s) is this film appropriate for?

I think this film is appropriate for 8th graders. There is some very interesting and complicated information given in the film, like how fuel-cell driven vehicles that use hydrogen work. This information might be too complicated to understand for grades below 8th grade.

Rating: 5 stars

I really liked this film and I’m really glad I watched it. It taught me a lot about how technology is growing and how new possibilities such as electric vehicles are being used and tested to try to replace the cars with traditional internal combustion engines. I really enjoyed this film!