

Which Alternative Fuel for Cars is Best?

Engineers have a major role in reducing the human impact on Earth systems. By developing and improving new technology for performing our daily tasks, engineers can change human activity, resulting in a reduction in the amount of pollution, waste, and degradation of the environment. Concern over the effect of rising levels of carbon dioxide in the atmosphere has spurred research in alternative fuel cars. In this activity you will need to pick 2 types of alternative fuels from the list below to research. You will be required to complete the tasks below in order to have a presentation ready so that people can be better informed on what type of alternative fuel vehicles they should be purchasing, and why. Make sure to finish your presentation with a claim/evidence/reasoning statements.

TASKS:

- 1) You must pick 2 alternative fuel technologies from this list. You will be comparing and contrasting the two different fuel types: electric cars, solar cars, ethanol-powered cars, hydrogen-powered cars, water-powered cars, propane-powered cars, biodiesel cars, natural gas-powered cars.
- 2) Research your topics using multiple sources focusing on the following topics. This is the information you will use to compare/contrast your two types of alternative fuels:
 - Explain how the technology works.
 - How is this technology an improvement over the use of gasoline powered cars?
 - Include how the use of the technology will result in less pollution, less waste, and a reduction of degradation (breaking down) of the environment.
 - What are the tradeoffs or downsides to using this technology?
- 3) Create 4 slides that compare and contrast the two alternative fuels you researched by explaining the information you found in task #2. Include your sources in your presentation.
- 4) Create a final slide in order to write a CRE (Claim, Evidence, Reasoning). Write a scientific explanation to support the technology best able to reduce the human impact on the environment. You will write a **claim**, your **evidence** from your notes, and your **reasoning**.
 - a. The **Claim** answers the question which alternative fuel car is best? The statement should include which alternative fuel car would best reduce pollution, waste and degradation on the environment.
 - b. **Evidence** should include all the things you are using that supports your claim. (A sentence frame to help would be: According to the group and their sources ...)
 - c. **Reasoning** is 2-4 sentences linking your claim and evidence. (some sentence frames would be: This indicates....., This Supports the claim because....., This is important because... This suggests that....)