


Webquest title	Electric vehicles: a smart choice for the environment?
Involved Subjects	English, Sociology, Information and communication technology, Mechanical engineering
Timing	1h (classroom)+ 4h (homework) +2h (feedback - debate)

Leading in Timing: 1h (classroom)	 https://pixabay.com/images/search/electric%20cars/
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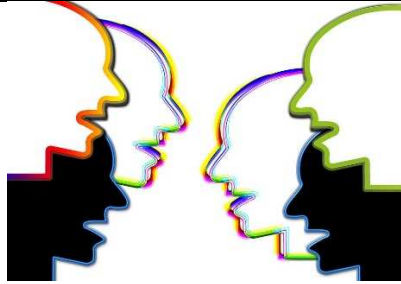
DEBATE



<https://pixabay.com/images/search/aristotle/>

ARISTOTLE ONCE SAID,

“IT IS THE MARK OF AN EDUCATED MIND TO BE ABLE TO ENTERTAIN A THOUGHT WITHOUT ACCEPTING IT.”



<https://pixabay.com/illustrations/exchange-of-ideas-debate-discussion-222786/>

A debate is a structured argument. Two sides speak alternately for and against a particular contention usually based on a topical issue. Unlike the arguments you might have with your family or friends however, each person is allocated a time they are allowed to speak for and any interjections are carefully controlled. The subject of the dispute is often prearranged so you may find yourself having to support opinions with which you do not normally agree. You also have to argue as part of a team, being careful not to contradict what others on your side have said.

<https://www.sfu.ca/cmns/130d1/HOWTODEBATE.htm>



<https://pixabay.com/vectors/eco-friendly-electric-vehicle-149801/>

ELECTRIC VEHICLES

Electricity as an energy vector for vehicle propulsion offers the possibility to substitute oil with a wide diversity of primary energy sources. This could ensure security of energy supply and a broad use of renewable and carbon-free energy sources in the transport sector which could help the European Union targets on CO₂ emissions reduction.

Electric vehicle 'tank-to-wheels' efficiency is a factor of about 3 higher than internal combustion engine vehicles. Electric vehicles emit no tailpipe CO₂ and other pollutants such as NO_x, NMHC and PM at the point of use. Electric vehicles provide quiet and smooth operation and consequently create less noise and vibration.

The policy related to battery-powered vehicles is mainly focused on technological optimisation and market development. Future challenges in this field include reliability and durability of batteries and super-capacitors, reducing battery weight and volume, safety, cost reduction, improved hybrid electric power-trains, charging infrastructure and plug-in solutions.



Electrification of transport (electromobility) is a priority in the Community Research Programme. It also figures prominently in the European Economic Recovery Plan presented in November 2008, within the framework of the Green Car Initiative.

The European Commission will support a Europe-wide electromobility initiative, Green eMotion, worth €41.8 million, in partnership with forty-two partners from industry, utilities, electric car manufacturers, municipalities, universities and technology and research institutions. The aim of the initiative is to exchange and develop know-how and experience in selected regions within Europe as well as facilitate the market roll-out of electric vehicles in Europe. The Commission will make €24.2 million available to finance part of the initiative's activities

https://ec.europa.eu/transport/themes/urban/vehicles/road/electric_en

<p>Assigned Task</p>	<p>Do you know what Electric vehicle is?</p> <p>Are Electric Vehicles Really Better For The Environment?</p> <p>You've been commissioned by the school to participate to the debate about Electric Vehicles. You will discuss a topic - Electric vehicles: a smart choice for the environment? from two opposing sides PRO and Contra.</p> <p>Identify working groups made up of three students:</p> <ol style="list-style-type: none"> 1. Study different arguments about the topic (Pro and contra arguments) - The aim of debating is to convince your audience of your point of view. 2. Prepare arguments to convince the audience for or against the use of electric vehicles 3. Debate / discuss about Electric vehicles and theirs impact to the environment
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<p>Process</p>	<p>I. Read the indicated resources and discover:</p> <ol style="list-style-type: none"> 1. What Electric vehicle is? 2. Are Electric Vehicles Really Better For The Environment? 3. What are Pros and cons of electric cars. <p>II. You'll be divided into groups of 3 members:</p> <p>The scoring of a debate is divided into three areas of adjudication – matter, method and manner. Matter refers to the content of your speech, method is the structure and how you organise your</p>
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arguments and manner relates to delivery. Each group should follow the next steps:

Step 1 – matter

- Start by defining the topic. Identify the key terms so that you know exactly what you are arguing. This ensures all team members are on the same page.
- Research widely. Any argument you make needs to be supported by reliable and convincing research.
- Name your sources to give your evidence validity and make it more compelling.
- Think about what other persuasive techniques you will use to promote your argument.
- Anticipate what the opposition may say and address these points in your arguments.

Step 2 – method

- the structure of your speech should include an introduction, body of main ideas and brief conclusion. Make it clear when you are starting a new argument with phrases such as, 'my second argument is...'
- Assign the following roles among the group based on your abilities:
 1. First speaker
 2. Second speaker
 3. Third speaker

Step 3 – manner

Just as important as what you say is how you say it. Your delivery is key to convincing your audience of your point of view. Prepare well for your speech. Make sure you consider the following when preparing yourself to speak:

- Aim to avoid reading your speech.
- Use cue cards with dot points if you feel able, or at the very least make sure that you use frequent eye contact to engage your audience.
- Don't address the opposition directly.
- Using pauses and varying volume are both effective ways of getting your point across.

II. Document the backstage of your work.

III. In the class before the debate itself, the draw will determine which group will be affirmative - in favor of or negative- opposed to.

Resources:

<https://clueylearning.com.au/blog/guide-to-debating/>

<http://www.zainproti.com/web/index.php/debata.html>

<https://www.sfu.ca/cmns/130d1/HOWTODEBATE.htm>

<https://www.bodieko.si/elektricna-vozila-zares-prijazno-okolja>

https://www.bb.si/sites/default/files/uploads/files/diplome/bucar_ales_-_diplomska_naloga.pdf

<https://www.dropbox.com/s/etp8kjr0ngvasyr/Debate%20Scoring%20Criteria%20and%20Guidelines.pdf?dl=0>

<https://www.youtube.com/watch?v=M69GBL0IDzI&feature=youtu.be>

<https://op.europa.eu/en/publication-detail/-/publication/fd62065c-7a0b-11ea-b75f-01aa75ed71a1>

<https://www.forbes.com/sites/jamesellsmoor/2019/05/20/are-electric-vehicles-really-better-for-the-environment/#b76dd6976d24>

<https://www.energysage.com/electric-vehicles/101/pros-and-cons-electric-cars/>

<https://pixabay.com/>

Learning Goals:

After completing the WebQuest assignment, you will:

- a) Know:
 - What Electric vehicle is
 - The importance of protecting the environment
- b) Be able to read an informative text regarding a specific thematic area
- c) Be able to read a product label
- d) Think of the society role in informing and sensitizing your peers about the importance of protecting the environment by thinking critically of topics.
- e) Improve your level of participation in school life

Participating in debates can teach you how to research a topic, think critically, and speak with conviction. These are great skills to learn while you're still in school.

Acquired key competence	Social Skills	Learnt knowledge and contents
<ul style="list-style-type: none">● Critical thinking<ul style="list-style-type: none">○ Data interpretation	<ul style="list-style-type: none">● Capacity to collaborate with peers.	<ul style="list-style-type: none">● Informational text● Knowledge of the

<ul style="list-style-type: none">• Digital and technology-based competences• Communication in foreign languages• Cooperation and communication in a team	<ul style="list-style-type: none">• Social awareness related to the topic• Capacity of think critically, and speak with conviction	<p>Electric vehicles</p> <ul style="list-style-type: none">• Know which behaviours lead to a sustainable lifestyle• Know how to speak in public
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