

An air powered car

Topic: Alternative energy sources

Aims:

- To develop reading skills / deducing meaning of vocabulary from context
- To develop speaking skills / discussing alternative energy sources

Level: Pre-intermediate +

For this lesson you will need:-

- Copies of the text and/or audio
- Copies of Worksheet A (comprehension and vocabulary exercises)
- Copies of Worksheet B (discussion exercise)

Introduction

During this lesson students will read and develop their understanding of a text about a new environmentally friendly car. They will then try to deduce the meaning of some of the vocabulary in the text. They will finally have the opportunity to develop their understanding of issues related to alternative energy sources and develop their ability to exchange views on this subject.

Procedure

Pre reading task:

Rationale: The aim of this part of the lesson is to get students interested in the topic and to find out what they already know and what vocabulary they need to know.

- Put students in pairs / small groups and ask them to make a list of 'alternative' energy sources. Set a 2-minute time limit for this to make it competitive.

Here are some possible suggestions:

Solar power: produced by the sun

Methane: produced from pig manure

Wind power: produced by large numbers of giant turbine windmills

Sea power: produced by the movement of waves

Tree power: produced by the swaying of trees in forests

- Write examples up on the board from students around the class and see if they can explain a little about them. Write up and clarify any new vocabulary that comes out of this.

Reading task:

Rationale: The aim of this part of the lesson is to motivate students to read the text and get a general impression of what it is about.

- Tell students that there is a new car that is powered only by air. Ask them if they believe you.
- Ask students to read the text and decide if they think it is factual or fictional. Set a strict time limit of two minutes for this so that they don't start to focus on every word, but simply read quickly to get the gist.
- Once they have had 2 minutes to read ask them to turn to the person next to them and tell them what they think.
- Ask students to put their hands up if they think it is factual or fictional, then tell them the correct answer. **(Answer: It is factual)**

Alternative reading task:

Find a picture of the car and get the students to work in pairs to predict information about it.

- Price? **(£7,000)**
- Power source? **(compressed air)**
- Top speed? **(65mph)**
- Invented in which country? **(France)**
- Maximum distance without refuelling? **(120 miles)**
- Possible problems? **(slow to refuel unless you by an expensive refuelling station)**

Then give them the text and ask tell them to check their predictions.

Comprehension reading task:

Rationale: The aim of this part of the lesson is for students to develop a quite detailed understanding of the text.

- Give out worksheet A with the list of names and statistics.
- Ask students to read the text again and make notes about the significance of the items on the list within the text.
- Once they have completed the task ask them to compare answers with the person next to them. This will give them the opportunity to refer back to the text and perhaps correct their own mistakes.
- Do a brief feedback session

| | Answers |
|-----------------------|---|
| 1. Guy Negre | The person who invented the car. |
| 2. Six years | The amount of time spent developing the car. |
| 3. 120 miles | The distance the car can travel on one tank of air. |
| 4. 65 mph | The maximum speed of the car |
| 5. £7,000 | The price of the car |
| 6. Four to five hours | The time needed to refuel the car. |
| 7. £70,000 | The price of a high speed refuelling station |
| 8. Taxi companies | Main customers for the car |

Vocabulary task:

Rationale: The aim of this part of the lesson is to develop students' ability to deduce the meaning of words from the context.

- Give the students the list of word definitions from the second part of worksheet A
- Ask them to find which of the **bold** words in the text is being defined. (They could work in pairs to do this).
- Do a brief feedback session and clarify any problems.

| Definitions | Answers |
|--|---------------------|
| a. a difficult time | crisis |
| b. being shown | <i>on display</i> |
| c. container for fuel | tank |
| d. facts that may not be true | claims |
| e. people who disagree with something | critics |
| f. powered by | run on |
| g. to have enough money to buy something | to afford |
| h. made to seem bigger or more important than they are | exaggerated |
| i. commented | pointed out |
| j. unbelievable | too good to be true |

Post text discussion:

Rationale: The aim of this part of the lesson is to give the students the chance to develop and express their own opinions regarding the issues surrounding the text.

- Give the students worksheet B. Ask them first to read it and think about whether they agree with the sentences.
- Then put the students into pairs / groups to discuss the sentences and decide whether they **all** agree or disagree with them. If they don't all agree, they **must** change/rewrite the sentences so that **all** the people in their group can agree or disagree.
- Once they've done this you could ask them to regroup and compare with some new classmates or you could open up the debate to the whole class.

1. Nobody will buy the CAT car because they are too slow.
2. I would rather buy a CAT car than a Mercedes.
3. People are too worried about the environment. There isn't really a problem.
4. Big companies should spend more money on finding clean power sources.
5. Ordinary people can do nothing to protect the environment. It is a job for the government.
6. Big companies don't care about the environment. They just want to make more money.
7. Cars are terrible dirty things. We should use more public transport.
8. There is no energy crisis. We have enough oil and coal to last for many years.
9. In five years time everybody will be driving an air powered car.

Text:

Could air be the solution to the energy crisis?

There is now an amazing new car that can **run on** air. It is cheap, creates no pollution and costs almost nothing to run. But is it just **too good to be true**?

The new CAT (compressed air technology) car was **on display** at the Paris motor show. The car was invented by Frenchman Guy Negre. He has spent the last six years developing his idea and has now produced a car that can travel up to 120 miles (200 kilometres) on one **tank** of compressed air and reach speeds of up to 65 mph (110 kph). The car will cost around £7,000 (10,000 euros) and will come complete with its own refuelling system.

There is a problem with the car though. It will take around four to five hours to refuel. A high speed refuelling station has been designed, but this will cost around £70,000 (100,000 euros).

The company believes that the car will sell well to taxi companies and delivery firms that operate in towns, because they don't need to travel long distances and they will be able to **afford** the cost of the refuelling station.

Some **critics** have **pointed out** that the car hasn't been properly tested yet and that the company's **claims** about the car's performance may be **exaggerated**, but even if the car can only achieve half of what the makers claim, it could turn out to be the answer both to the energy **crisis** and to the problem of inner city pollution.