

Lesson 6

IT'S YOUR WORLD!

This lesson plan links to the following national curriculum areas:

- PHSE NC criteria: Knowledge, skills and understanding: 3d; Breadth of study: 4d, 4g
- Citizenship: Unit 05, How the economy functions; Unit 09, Consumer rights and responsibilities; Unit 12, Global issues, local action
- English: Speaking: 1a, 1b, 1d; Group discussion: 3a, 3b; Reading: 4a, 4c; Writing: 1e, 1f, 1g, 1h, 1i, 2, 3, 4
- Key skills: ICT; Communication; Improving own learning and performance

Objectives At the end of the lesson the student will be able to:

- List future environmental problems linked to increased car ownership
- Understand the reasons for decreasing the production of fossil fuels
- Propose alternative methods of future car propulsion
- Understand the future possibilities of green driving

Activity	Method	Timing	Resources / materials
<p>1 Introductory activity: Prioritising key issues</p>	<p>Board work: The teacher presents students with a list of seven key car issues:</p> <ul style="list-style-type: none"> • speed • fuel economy • design • low depreciation • low insurance • safety • environmental impact <p>The students vote individually on their personal preferences – the two least important and the two most important. Record votes on the board. Discuss outcomes.</p>	10 minutes	<p>For further information on car and environment issues refer to www.AA-Attitude.co.uk >Owning a car >Choosing your car.</p> <p>AND</p> <p>www.AA-Attitude.co.uk >Driving truths >Environment.</p> <p>Note: Use <i>Activity sheet 1: Car issues</i>, for an alternative approach and prepare sets of eight cards, listing the key car issues. Ask students to sort them into their personal order of preference.</p>
<p>2 Activity 1: Future traffic issues</p>	<p>Students work in small teams to identify and list the main issues that will face transport over the next 30 years.</p> <p>Teachers ensure that congestion, oil crisis, increasing costs, safety concerns are all raised.</p> <p>Class discussion on how these problems could be solved. Ensure that legislation, limitation, public transport, new technology, are all raised.</p>	15 minutes	<p>Internet access Further information can be found at: www.AA-Attitude.co.uk >Driving truths > Environment.</p> <p>http://news.bbc.co.uk/1/hi/uk_politics/2975216.stm</p>

Activity	Method	Timing	Resources / materials
	<p>Differentiation Easier: Students identify future transport problems specific to their area and discuss how one of these can be solved. Harder: Students come up with a specific solution (eg political) to tackle transport problems of the future.</p>		
<p>3a Activity 2: Design activity</p>	<p>Activity alternative 1: Students work in pairs or small teams to design their car of the future, clearly annotating their main design points. Introduce key outline criteria for this design:</p> <ul style="list-style-type: none"> • looks and aerodynamics • size • space • efficient layout • controls/automation • entertainment • fuel type <p>Team drawings are subsequently explained and displayed.</p> <p>Differentiation Easier: This activity Harder: Go to 3b</p>	<p>25 minutes</p>	<p>A3 paper and pens required</p>
<p>3b Activity 2: Topic research: How can we keep cars going as oil disappears?</p>	<p>Activity alternative 2: Teacher introduces factual information on fossil-fuel depletion.</p> <p>Students work in pairs using <i>Activity sheet 2: Alternatives to petrol</i> to produce simple PowerPoint presentation on alternative energy solutions.</p> <p>Allocates the following topics:</p> <ul style="list-style-type: none"> • solar power • diesel fuel • soya fuel • electric • LPG • hydrogen • fuel cells • air powered • robot cars • alternative transport systems • hybrid cars 	<p>30 minutes</p>	<p>A3 paper and pens required</p> <p>Easy access to a minimum of six Internet PCs is recommended.</p> <p><i>Activity sheet 2: Alternatives to petrol</i></p>

Activity	Method	Timing	Resources / materials
	<p>Students research using appropriate Internet websites.</p> <p>Note: If there's not enough time for presentations in this lesson, arrange a future class for students to present. Students could judge the quality of each presentation, or they could be reviewed by the teacher. Award a prize for the best presentation if appropriate.</p>		
<p>4 Plenary</p>	<p>Differentiation Easier: Go to 3a Harder: This activity</p> <p>Final summary asking students their opinions on what transport will be like in 30 years time.</p>	5 to 10 minutes	

Extension or homework suggestions

- 1 Students review several science-fiction films or film extracts featuring future transport. Suggested films: *I, Robot*, *The Fifth Element*, *Blade Runner*, *Minority Report*, and draw conclusions on the suggested future of urban transport.
- 2 Students to prepare a classroom debate focusing on a suggested government plan which will limit car ownership to one per family. Teams will focus on the cases for and against.
- 3 Write a short story/poem illustrating the city traffic situation in the year 2060. One task might see students writing a newspaper account of a revolutionary new fuel that uses only household waste to power cars, with no polluting effect.

Activity sheet 1

CAR ISSUES



Speed	Fuel economy
Looks	Low depreciation
Low insurance	Safety
Environmental impact	Price

Activity sheet 2

ALTERNATIVES TO PETROL

You will be allocated a particular topic to research by your teacher. Your task is to carry out research using the Internet.

You might want to try these websites:

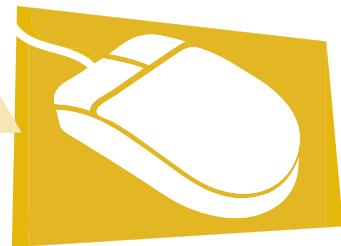
For environmental research:

www.environment-agency.gov.uk/
www.grida.no
www.eea.europa.eu/
www.guardian.co.uk/prius/environment

For car related research:

www.honda.com
www.ford.com
www.volkswagen.com
www.toyota.co.uk
and other car manufacturers.

For general research: www.howstuffworks.com



Once you have gathered information, create a short and attractive PowerPoint presentation on the way in which your subject suggests vehicles might be powered in the future.

The presentation should include three slides:

- The first will give an explanation of the petrol alternative or an interesting idea you are researching.
- The second slide will focus on the benefits of your alternative.
- The third slide should give information on the possible disadvantages or problems linked to the alternative, and what might be done to overcome them.

You should include 'cut and pasted' illustrations.

TEACHER EVALUATION

Use this sheet to evaluate how the lesson went and how you would look to improve it. You may like to post any suggestions on the Contact us page of the teacher zone.

IT'S YOUR WORLD

Comments

a) What worked well?

b) What didn't work well?

c) How would you improve this lesson the next time?

60-SECOND STUDENT EVALUATION

Name: _____

Name or number of lesson: _____

During this lesson the **three** most important things I learned were:

- 1.
- 2.
- 3.

The things I **enjoyed most** about this lesson were:

The things I **least enjoyed** about this lesson were:

Finally, **give the lesson a rating** on a scale of 1 to 10, with 10 as the best.

(Please circle your answer)

1 2 3 4 5 6 7 8 9 10