

The Vege Car

by Peter Stevens

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Overview

This report describes how and why James nui Macdonald built a car that runs on vegetable oil and the trip he made in the car with his son from one end of the country to the other. The text has particularly strong links with science and technology. It introduces a wide range of environmental and technical concepts, so allow plenty of time for discussion and clarification.

Suggested Teaching Purpose

Based on the information I have about my students' learning needs, what would be an appropriate teaching purpose for this session?

Examples of an appropriate teaching purpose are listed below.

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| <ul style="list-style-type: none">To support the students in developing the comprehension strategies of summarising, making connections, identifying the main idea, and evaluating. |
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Features of the Text to Consider in Context

What features of this text would support the teaching purpose?

<ul style="list-style-type: none">The humorous teaser on the contents page
<ul style="list-style-type: none">The main ideas of being environmentally friendly (and the connection with traditional Māori values), Kiwi ingenuity, doing something you believe in, teamwork, family pride, and perseverance
<ul style="list-style-type: none">The structure of the text as a report about what James nui did, with supporting explanations in the text boxes
<ul style="list-style-type: none">The engaging introduction and conclusion, which both make strong connections to the reader's experience
<ul style="list-style-type: none">The lively conversational style:<ul style="list-style-type: none">- the direct address to the reader- the use of questions, especially at the beginning and end of the text- the response to an anticipated question that hasn't been asked ("And yes, the Macdonalds can ...")- the use of dashes rather than commas to link ideas ("It's great — but is it reliable?")- the use of the word "vege" rather than "vegetable"- the use of ellipses for impact- the figure of speech "smooth sailing"
<ul style="list-style-type: none">The inclusion of quotes and opinions from James nui and James iti
<ul style="list-style-type: none">The Māori concepts and words, for example the use of "nui" and "iti" to differentiate between James the father and James the son and the Māori names for the North and South Islands
<ul style="list-style-type: none">The author's enthusiasm for the vege car
<ul style="list-style-type: none">The topic-specific vocabulary
<ul style="list-style-type: none">The supportive photographs and map of the trip.

Readability

Noun frequency level: 10–12 years for guided reading

What features of this text might constitute challenges for my students? (For example, features that may require a prompt or a brief explanation.)

•	ESOL students may need support with the colloquial nature of some of the language, for example, “Who hasn’t noticed ...”, “smooth sailing”
•	The need to make connections between a large number of pieces of information
•	Particular words and concepts, including “in keeping with”, “carbon monoxide” (and the other gases listed), “asthma”, “climate change”, “emissions”, “crude oil”, “environmentally friendly”, “Te Waipounamu”, “transported”, “fuel system”, “smooth sailing”, “Parliament”, “navigator”, “vege car converter”.

What prior knowledge would support my students in reading this text?

•	Their knowledge of the problems with fossil fuels and of environmentally friendly alternatives
•	Their knowledge of the war in Iraq and its connection with oil
•	Their awareness that people sometimes feel so strongly about issues that they decide to take action, including protest action
•	Their experiences of working with their families on particular projects.

Sharing the learning outcome and success criteria with your students

Learning outcome

I am learning to evaluate the main ideas in this text.

Success criteria

I will be successful when I have:

•	used the strategy of summarising to help me follow and understand the key points in this text;
•	made connections between the key points to help me identify the main ideas in this text;
•	formed an opinion about the main ideas in the text and given reasons for my opinion.

A Framework for the Lesson

How will I help my students to achieve the learning outcome?

Before reading

•	Tell your students you have a text for them to read about an unusual kind of fuel. Ask your students how they got to school this morning. Generate a discussion of the environmental issues around using cars. Prompt your students with questions like: “How do car fumes affect the environment? Where does petrol come from?” (Making connections)
•	Introduce the title and teaser on the contents page. “What do these suggest to you about this article? Is it possible to run a car without using petrol?” “As you read, I want you to think about what the main ideas are in this text.” (Making connections; identifying the main idea)
•	Share the learning outcome and success criteria with the students.

During reading

•	Have the students read page 9. Spend some time drawing out and clarifying ideas before they read on. “Why has the author asked, ‘Who hasn’t’ instead of ‘Who has’?” Draw out the idea that most people grumble about petrol prices. (Identifying the author’s purpose; making connections)
•	If necessary, prompt the students to cross-check to clarify that “Macdonalds” refers to the family, not a restaurant (in case they’re initially confused by the association with “takeaway shops” and “chips”). If you have ESOL students in the group, you may need to explain that the word “on” in the phrase “drive their car on vegetable oil” means “using”. (Cross-checking; building vocabulary)

<ul style="list-style-type: none"> • The students may note the writing on the car in the photographs, especially the reference to diesel. Check the students’ understanding of what diesel and petrol are. You could speculate with the students about what the link could be between diesel and vegetable oil. (This link is clarified on page 11.) (Making connections; forming hypotheses)
<ul style="list-style-type: none"> • Clarify the use of the comma after “Dad” to indicate that Dad is James nui Macdonald. (Draw out the idea that the comma has the same function here as a dash or brackets.) Encourage the students to infer what “nui” might mean in this context. (Supporting syntax; inferring)
<ul style="list-style-type: none"> • Notice that the final sentence is structured as an answer to a question. “What would the question be? Is that what you were thinking?” Encourage the students to predict what exactly might be “thanks to Dad”. (Making connections; forming hypotheses)
<ul style="list-style-type: none"> • Bring the discussion together by having the students summarise the key points so far, for example: petrol is expensive, vegetable oil is cheaper than petrol and cars can use it, and James nui Macdonald seems to have worked out a way to do this. (Summarising)
<ul style="list-style-type: none"> • Have the students read the first paragraph on page 10 and confirm their predictions about what James nui has done. (Testing hypotheses)
<ul style="list-style-type: none"> • Ask the students to summarise and discuss James nui’s reasons for building the car. Support them with any gaps in their knowledge, for example about the war in Iraq or the fact that petrol comes from oil. (Summarising; making connections)
<ul style="list-style-type: none"> • Prompt the students to make connections between the phrase “and it’s recycled!” and the statement on the previous page about the Macdonalds using the oil after it has been cooked. (Making connections)
<ul style="list-style-type: none"> • Discuss the main ideas or themes that seem to be developing on this page, then ask the students to read and identify the key points in the section Nasty Gases. Clarify concepts like “climate change” if necessary, but don’t get bogged down in the technical detail. “Why has the author included this Nasty Gases section?” (Summarising; making connections)
<ul style="list-style-type: none"> • Have your students read page 11, supporting them with unfamiliar vocabulary as necessary. Have the students clarify the connection between diesel and vegetable oil. (Making connections)
<ul style="list-style-type: none"> • “Why do you think James is keeping the details of his work a secret? What do you think of his decision to do that?” You might discuss ideas around patents and intellectual property — in language appropriate to your students. (Inferring; evaluating)
<ul style="list-style-type: none"> • Briefly discuss what motivated James to make the trip in the vege car. (Summarising; making connections)
<ul style="list-style-type: none"> • Ask the students to predict how, where, and to whom James might have shown the car. Then have them look at the photographs through to the end to check their predictions (for example, the photographs show advertising on the car, visiting TVNZ, and approaching political leaders). (Forming and testing hypotheses)
<ul style="list-style-type: none"> • Have your students read page 12. Note the son’s name, James iti, and have the students review their earlier predictions about the name James nui on page 9. Some students will know the name Te Waipounamu for the South Island (and some may know it as Te Waka-a-Māui) and Te Ika-a-Māui for the North Island. Discuss the meaning of the expression “smooth sailing”. (Testing hypotheses; building vocabulary)
<ul style="list-style-type: none"> • “What does the speeding ticket tell you about the vege car?” Draw out the idea that it proves the car must go fast. Note that the “action” photo on page 13 supports this idea. (Inferring)
<ul style="list-style-type: none"> • Have your students read page 14 and study the photographs. Clarify who Jeanette Fitzsimons is and discuss the signatures of the mayors in the photograph behind her. “Why do you think James nui talked to politicians?” (Testing hypotheses; inferring; making connections)
<ul style="list-style-type: none"> • Discuss the main ideas (or themes) that come through on this page, particularly in the final paragraph: perseverance, teamwork, and family pride. (Identifying the main idea)
<ul style="list-style-type: none"> • Have your students read page 15 and consider the question at the very end. “What are your feelings about car travel now that you have read this text?” Discuss how a decision to be more environmentally conscious can involve compromises. “Do you think the benefits outweigh the disadvantages? Why or why not?” (Evaluating)

After reading

•	The students may identify a link with <i>The World's Fastest Indian</i> (about the world land speed record that Burt Munro set with his home-modified motorbike). If not, draw out the theme of Kiwi ingenuity (the “number 8 wire” mentality) that underlies this text. Find out what the students know about other New Zealanders who have “done it themselves” and invented great things, such as John Britten and his development of motorbikes. “Why do you think Kiwis are good at this?” You could discuss factors like our geographical isolation and our history of settlement, which meant that people had to work out ways of solving problems and making things themselves. (Identifying the main idea; evaluating)
•	Discuss the theme of being kind to the environment and the link with traditional Māori values. Refer to the final text box on the current situation in New Zealand. “What might the vege car mean for Aotearoa New Zealand? What things could <i>you</i> do to be more environmentally friendly?” (Identifying the main idea; making connections; evaluating)
•	Have the students evaluate the effectiveness of James nui’s publicity plan. “Do you think other people would want to try out his idea?” (Note that the maddiesel website address on the car suggests that James wasn’t relying entirely on the New Zealand road trip for publicity.) (Evaluating)
•	Review the learning outcome and success criteria and reflect with the students on how well the learning outcome has been achieved. “What helped you identify the main ideas in this text?” Note any teaching points for future sessions.

Links to Further Learning

What follow-up tasks will help my students to consolidate and/or extend their new learning?

•	Your students could research more about the vege car or other environmentally friendly cars. Alternatively, they could investigate other topics from the text that interest them, for example, Rudolf Diesel or other inventors. The keyword “inventions” in Journal Surf will generate a useful list. (Making connections)
•	Have your students work in groups to design an advertising campaign for the vege car. (Making connections)
•	Students could read articles in the <i>Connected</i> (CN) series that have strong links to the main ideas in this text. For example, “Room 5’s Amazing Meeting Saeting” in CN 2 2005 and “Kiwi in the City” in CN 2 2000 are examples of ingenuity (and problem solving); “A New Life for Old Machinery” in CN 3 2007 is about being environmentally friendly; and “Our Pataka” in CN 3 2005 is about a modern use for traditional Māori technology. (Making connections)
•	Have the students read the School Journal Story Library text <i>Superbike</i> about John Britten.
•	Your students could write an argument for or against driving to school. (Evaluating)

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