

# DECISION MAKING – REDUCING GREENHOUSE GAS EMISSIONS

## Teacher-led Activity

In this activity, the students are given eight possible courses of action to reduce greenhouse gas levels. Working in groups, the students will circulate around the room writing down their viewpoints on each course of action. They will finish up by writing a report which has their recommendation of the best way for New Zealand to reduce greenhouse gas levels.

With the support of



Sustainable Management Fund

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## INTENDED LEARNING OUTCOMES

Students can:

- evaluate the possible courses of action to reduce greenhouse gas levels
- write a report recommending the best course of action to reduce greenhouse gas levels in New Zealand and justify their decision.

## PRIOR KNOWLEDGE

Students will need to have an understanding of:

- the causes of global warming and climate change (that is, an increase in greenhouse gas emissions). [The Greenhouse Effect](#)

We recommend that students complete the following Schoolgen activities first:

- Exploring the Kyoto Protocol
- Is It Environmentally Friendly?

## WHAT YOU NEED

- A blank sheet of A3 paper for each group.
- [Transactional Writing Assessment Sheet](#).

## FOCUS

- What is causing climate change and global warming?
- What are greenhouse gases?
- What can be done to reduce greenhouse gas emissions?

## MANAGING THE ACTIVITY

### Class Discussion

As a class, discuss the following methods of reducing greenhouse gas emissions in New Zealand:

1. Build more wind farms.

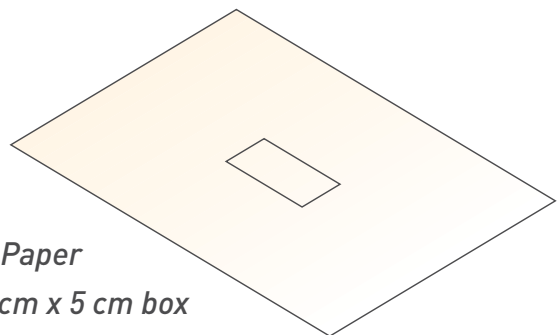
2. Build more dams for hydro-electricity.
3. Build a nuclear power station.
4. Plant more trees.
5. Make homes more energy efficient.
6. Make it expensive to use cars and make them more energy efficient.
7. Improve public transport.
8. Innovate farming practices.

What are the costs and benefits of these courses of action?

### Group Work

Students work in groups.

Give each group a sheet of A3 paper. In the centre of the paper, the students draw a 10 cm x 5 cm box.



*A3 Paper*

*10 cm x 5 cm box*

Each group will take one method of reducing greenhouse gas emissions in New Zealand. In the box, the students write their course of action and say how it will reduce greenhouse gas emissions.

The students need to discuss this course of action and then summarise the group's viewpoints on the sheet. Their viewpoint may be "supporting this course of action and why" or "not supporting it and why". The

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group could list the strengths and weaknesses of the course of action. (Leave space for other groups to write their viewpoints on the sheet.)

Give each group 5 minutes to complete the group viewpoint. Then the groups move to the next course of action so that each group circulates around the room going to each sheet in turn.

When the groups get back to their original sheet, they will need to read through the other groups' viewpoints and summarise this in their books. They will present this back to the class.

## REFLECTION

- Which course of action has the most support and why?
- Which course of action has the least support and why?
- What is the best course of action for New Zealand to follow and why?

## EXTENSION

Produce a report for the Parliamentary Commissioner for the Environment, in which the students make a justified recommendation for the best course of action to reduce greenhouse gas levels in New Zealand.

## SUGGESTED WAYS TO ASSESS STUDENTS

Students use the transactional writing assessment rubric to assess each other's reports to the Parliamentary Commissioner

for the Environment.

## SUPPORTING RESOURCES

- Study Guide (accompanies the movie "An Inconvenient Truth")  
<http://www.aninconvenienttruth.com.au/truth/guide.htm>
- Parliamentary Commissioner for the Environment  
<http://www.pce.parliament.nz>

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## TRANSACTIONAL WRITING ASSESSMENT SHEET

4

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Report title: \_\_\_\_\_

Assessed by: \_\_\_\_\_

CRITERIA	NOT OFTEN 1	SOMETIMES 2	OFTEN 3	COMMENTS
<b>Audience / Purpose</b> Conveys an opinion, clearly and logically. Targets the audience through appropriate stylistic and language selections.				
<b>Content / Ideas</b> Clearly and consistently maintains a point of view. Supports main ideas convincingly through elaboration, evidence, and links to other ideas.				
<b>Structure</b> Structures material appropriately for form and purpose. Links main and supporting ideas within and between paragraphs, using a range of connectives. Conveys a sense of coherence.				
<b>TOTAL</b>				