

## LIVING IN A GREENHOUSE: MODULE OUTLINE

**Field:** Natural world    **Band:** Lower secondary (Year 10)



### Purpose

Students prepare a campaign to educate a specific audience and persuade its members to participate in practices and habits that reduce greenhouse-gas emissions.

### Core learning outcomes

This module is designed for students in three stages of LOTE learning. It is assumed that most students will be in the intermediate stage.

Outcomes for students at the intermediate stage would be:

Comprehending [DB6.1](#), [DB6.2](#), [DB6.3](#)

Composing [DB6.4](#), [DB6.5](#), [DB6.6](#)

Some students could be in either the lower intermediate or elementary stages of LOTE learning.

Outcomes for students at the lower intermediate stage would be:

Comprehending [5.1](#), [5.2](#), [5.3](#), [6.1](#), [6.2](#), [6.3](#)

Composing [5.4](#), [5.5](#), [5.6](#), [6.4](#), [6.5](#), [6.6](#)

Outcomes for students at the elementary stage would be:

Comprehending [3.1](#), [3.2](#), [3.3](#), [4.1](#), [4.2](#), [4.3](#)

Composing [3.4](#), [3.5](#), [3.6](#), [4.4](#), [4.5](#), [4.6](#)

To see the detailed descriptions, click on the relevant level.

### Content

The content for this module is delineated in the field and tasks and under the headings of ‘sociocultural understanding’ and ‘functions and language elements’. The teacher will need to select a range of appropriate [process skills and strategies](#) that will meet the current needs of the students. Students’ needs and teaching programs will determine the specific content of [form-focused instruction](#).

### [Sociocultural understanding](#)

Students explore environmentally friendly energy production projects in Japan and compare Japanese greenhouse-gas emission levels with those in other countries.

### [Suggested teacher language](#)

This natural language provides rich input.

## Functions and language elements

- **expressing opinions:** I think ...
- **describing and asking about procedures:** steps in an experiment
- **identifying and asking about people, places and things:** materials, natural features, elements, projects, individuals, groups
- **identifying and asking about situations and activities:** causes of the enhanced greenhouse effect
- **describing situations and activities:** causes, impacts, when ... then, ... will cause
- **comparing:** the same, higher, lower, greenhouse effect, more, most, less, least, highest, lowest, advantages, disadvantages, benefits, difficulties
- **expressing probability and improbability:** outcomes of experiments
- **expressing possibility and impossibility:** may, might, might not, could, could not, if ... then
- **describing places and things:** beautiful, small, polluted, uninhabitable, safe, project features, locality conditions, statistics
- **giving locations:** where impact of enhanced greenhouse effect may be felt; countries, towns, places

- **giving reasons:** because ...
- **expressing obligation and duty:** should, should not

## Assessment strategy

In [Task 2](#), [Task 3](#) and [Task 5](#) the teacher can observe and analyse how well students are able to obtain information from reading texts and apply it to other tasks and scenarios. At what [level](#) can students comprehend language describing the causes, possible impact and some ways of reducing greenhouse-gas emissions?

In [Task 3](#) and [Task 9](#) the teacher can make anecdotal records of how well students can apply information heard to labelling diagrams and engaging in argument. At what [level](#) can students comprehend language used to describe the possible impact of increased gas emissions and give persuasive argument for taking steps to reduce gas emissions?

In [Task 4](#), [Task 5](#), [Task 9](#) and [Task 10](#) and throughout the unit the teacher can observe and assess students' communicative abilities as they engage in argument and debate, make presentations and interact with each other. At what [level](#) can students use language to identify greenhouse-gas emissions, describe their possible impact and describe and argue for ways of reducing gas emissions?

In [Task 6](#) and [Task 10](#) the teacher can collect and analyse samples of students' written work when they prepare a case study and campaign materials. At what [level](#) can students use language to prepare a case study and campaign materials for a specific audience?



### Teaching considerations

#### Sample units

One work unit is provided for this module:



#### [Unit 1: Living in a greenhouse](#)

## **Teaching considerations**

Consultation with science teachers may facilitate a team approach to ensure students understand greenhouses and the greenhouse effect.

## LIVING IN A GREENHOUSE: UNIT OVERVIEW



### Orientating tasks

- 1** Read the instructions for doing an experiment and predict the results. Do the experiment and graph the results. Relate the results to a diagram of a plant greenhouse; elaborate on this and label the diagram.
- 2** Read about the enhanced greenhouse effect. Identify some causes and classify them into natural, created by people, and natural but accelerated by people.



### Enhancing tasks

- 3** Read predictions and listen to some scenarios about what might happen if nothing is done about the enhanced greenhouse effect. Prepare and present labelled diagrams to explain the scenarios.
- 4** Suggest reasons for the differences in total and per capita carbon dioxide emission levels for various countries.
- 5** Read and evaluate case studies that reduce greenhouse-gas emission levels. Nominate places where similar projects could be implemented and explain why these sites may be suitable.

- 6** Prepare and present a case study on some aspect concerning greenhouse-gas emissions in Japan.
- 7** Read about some ways to reduce greenhouse-gas emissions and identify the individuals or organisations responsible.
- 8** Collate, graph and report on activities that students in the class do that reduce greenhouse-gas emissions. Plan and set targets for improvement.
- 9** Listen to persuasive argument about how to reduce greenhouse-gas emissions and take notes. Prepare a persuasive argument to present to others about reducing gas emissions.

Students' needs and teaching programs will determine the specific content of **form-focused instruction**.



### Synthesising task

- 10** Prepare and present campaign materials to educate a specific audience about greenhouse-gas emissions and suggest ways to reduce gas emissions.

[Print all Unit Tasks](#)

[Print all Unit Resources](#)

[Print all Unit Suggested Teacher Language](#)