

WithOnePlanet

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carbon cycle
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Your future

Lesson 8

Teacher notes

Next stop on the carbon cycle

Years **9 to 10**



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Next stop on the carbon cycle

Lesson 8: Teacher notes

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This document provides the teacher with the details of the lesson.

At a glance

To provide students with an opportunity to review their understandings, knowledge and skills that have been learnt during the unit and to identify any gaps that exist.

To provide students with an opportunity to reflect on the success of their own learning strategies and tools, and to identify any of these with which they require additional support.

Lesson focus

The *Your future* phase is designed to provide opportunities for students to take their learning about carbon futures into a new cycle of inquiry in their own preferred direction.

In the *Your future* phase, students develop a literacy product to represent their new understandings. They discuss and identify patterns and relationships within their observations. Students consider the current views of scientists and extend their own understanding.

Assessment guide

This assessment guide supports teachers in identifying the types of assessment that are appropriate for this lesson.

Formative assessment is an important aspect of the *Your future* phase. It involves monitoring students' developing understanding and giving feedback that extends their learning. It involves monitoring students' developing understanding of:

- > carbon futures in their own preferred direction.

Summative assessment of the science inquiry skills may be an important focus of the *Your future* phase. It involves assessing students' understanding of

- > carbon futures in their own preferred direction.

It is recommended that the teacher develop a meaningful rubric to capture the students' learning at this point. This lesson also provides opportunities to monitor the development of students' general capabilities.

Key lesson objectives

Science

Students will be able to represent their current understanding as they:

- > develop their own learning pathways to enhance their understanding of carbon futures.

Literacy

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Students will be able to:

- > contribute to reflective discussions about the concepts of carbon and climate change and their own learning journeys
- > record understandings and ideas using any suitable written media.

Equipment

For each Student

- > This is decided in discussions between the student(s) and their teacher.

Preparation

- > This will be based on decisions about the directions of student learning based on discussions between each student and their teacher.
- > Optional – *Next stop on the carbon cycle [Y chart] - Student worksheet*

Lesson steps

1. Ask students to review their learning throughout the unit. They can do this through a variety of means, including (but not limited to):
 - > reviewing their answers to *Carbon bingo!* during the *Review* lesson
 - > re-examining their class essential question and a summary of their responses
 - > re-examining their responses on other student worksheets
 - > a class discussion
 - > completing a *Y chart*.
2. Students can plan the next step in their learning about *carbon futures* in groups or individually.
3. Students will need to discuss their ideas for future learning with their teacher, including their objectives, general outline or plan, proposed timeline, necessary equipment, etc. An agreement should be reached between the students and the teacher about these items before the learning is commenced.