Name:

Grade:

School:

Date:

WithOnePlanet

> Module 1: Carbon

> Level: Years 9 to 10

> INQuIRY: Review

> Lesson 7: Carbon's call to action – bingo!

> Student worksheet

Lesson 8 – Worksheets

Review

Lesson 7
Student worksheet
Carbo's call to action – bingo!

Years 9 to 10

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INQuIRY

WithOnePlanet
Open education
An xpand Foundation initiative

Carbon's call to action – bingo!

Lesson 7: Student worksheet

Step 1: Prepare your game board

The white squares on your game board need to be completed.

To do this, you will need to create a question for each square using the 'question starter' provided in that square. These 'question starters' relate to the **green box** which begins the row that the square is located in. You must read the description in each green box to make sure the questions you create match that description.

Each question you create needs to be based on the statement in the **pink box** which heads the column it is located in. You must read the description in each pink box to make sure the questions you create match that description.

The **orange squares** on your game board provide you with some examples of how to do this.

Every square on the game board that has a question also needs an answer.

To do this, you will need to review all of the worksheets and other tasks that you have completed during the unit, and write an answer. If necessary, you may need to slightly update the question so that the answer is directly related to the areas you have learnt about. Remember, however, that the question still needs to be relevant to both the green and pink boxes.

Some of the questions may have more than one answer. For these questions, provide as many options for that answer as you can think of, but during the game, be prepared for any other responses that also correctly answer that question.

Write the answers to all of the questions from your game board (including the questions in the orange squares) on the answer sheet provided.

HINT: You may want to use your game board more than once. If so, it is a good idea to cover your game board in clear plastic (e.g. contact, plastic pocket, etc.), so that any marks can be removed.

Gather your equipment.

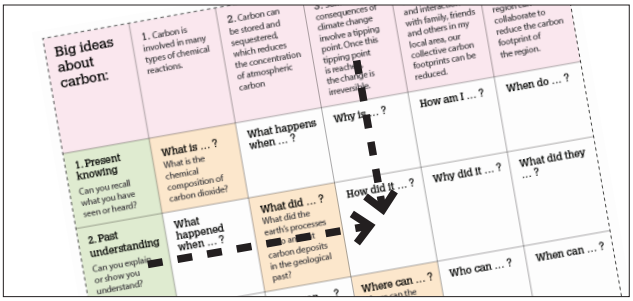
For this game you will need the following:

- your game board and answer sheet
- two dice – each numbered 1-6, that preferably look different from each other (e.g. colour, size etc.)
- 2–3 other players
- a texta (if using a re-useable game board) or a pen/pencil.

Step 2: Let's play carbon bingo!

Rules

1. Players swap game boards so that they are not playing using their own game board.
2. Assign one die to **pink boxes** and the other die to **green boxes**. Remember which die represents which colour. The number that the **pink box** die lands on refers to the numbers shown in the **pink boxes**. The number that the **green box** die lands on refers to the numbers shown in the **green boxes**.
3. Each player takes it in turns to toss both dice.
4. With your fingers, trace into the centre of the board from the **green box** and **pink box** until you reach the correct question. An example of how to do this is shown below.



5. If a player rolls a '6' with the **pink box** die, they can select any of the **pink boxes** (1-5) to select their answer from. However, they will need to select the correct **green box** based on the number appearing on the **green box** die.
6. Once the player has selected the correct box, they must read the question in that box and attempt to answer it.
7. The player who originally created that game board will consider the answer given, and check their solutions sheet to determine whether the answer is correct or not.

   NOTE: It is not important to answer the question using all the same words as are contained in the answer on the answer sheet. As long as the ideas/concepts/key terms are the same, then the answer can be deemed correct.
8. If a player gets the answer correct, they can place a cross over the question in that square and take another turn. If a player gets the answer INcorrect, they canNOT place a cross over the question in that square or make a second attempt to answer that question. The next player takes a turn.
9. A player can decide not to roll the die and instead attempt to answer a question for a second, third …, etc. time. However, the player must wait for their next turn before they offer another answer. A player can attempt to answer a single question as many times as they wish. Alternatively, if a player chooses not to answer a question that they previously got incorrect, they can elect to answer a different question by rolling the dice.
10. A player wins by being the first player to shout CARBON BINGO! when they have correctly answered AT LEAST ONE question relating to each of the green and pink boxes. For example, if the player answers all of the questions in the orange boxes correctly, they can shout CARBON BINGO!

Good luck!

Carbon bingo! - Student worksheet/game board

Big ideas about carbon:	1. Carbon is involved in many types of chemical reactions.	2. Carbon can be stored and sequestered, which reduces the concentration of atmospheric carbon	3. Some of the consequences of climate change involve a tipping point. Once this tipping point is reached, the change is irreversible.	4. Through communication and interaction with family, friends and others in my local area, our collective carbon footprints can be reduced.	5. People in different countries in the Asia-Pacific region can collaborate to reduce the carbon footprint of the region.
1. Present knowing Can you recall what you have seen or heard?	**What is … ?** What is the chemical composition of carbon dioxide?	**What happens when … ?**	**Why is … ?**	**How am I … ?**	**When do … ?**
2. Past understanding Can you explain or show you understand?	**What happened when … ?**	**What did … ?** What did the Earth's processes do to ancient carbon deposits in the geological past?	**How did it … ?**	**Why did it … ?**	**What did they … ?**
3. Possibility applying Can you use the new knowledge or show how it connects to other things you know or can do?	**How can … ?**	**Why can … ?**	**Where can … ?** Where can the Earth's CO_2 concentration get to before the Earth starts to go into a new ice age?	**Who can … ?**	**When can … ?**
4. Probability analysis Can you break down the information in a meaningful way?	**Why should … ?**	**If … happened, what could the ending be?**	**When could … ?**	**What would … ?** What would happen if everyone in the world had the same ecofootprint as me?	**Who should … ?**
5. Prediction evaluation Can you justify a decision with evidence of reasoning?	**Which will … ?**	**How will … ?**	**Why will … ?**	**When will … ?**	**What will … ?** What will the outcome of collaboration between our school and a school in Timor Leste be?
6. Imagination creating Can you create new product, ideas or a new way of looking at things?	**How might … ?**	**Who might … ?**	**Which might … ?**	**Why might… ?**	**How many ways might … ?**

Answer sheet

What is ...	
What happens when ...	
Why is ...	
Who am I ...	
When do ...	
What happened when ...	
What did ...	
How did it ...	
Why did I ...	
What did they ...	
How can ...	
Why can ...	
Where can ...	
Who can ...	
When can ...	

Why should …	
If … happened, what could the ending be?	
When could …	
What would …	
Who should …	
Which will …	
How will …	
Why will …	
When will …	
What will …	
How might …	
Who might …	
Which might …	
Why might …	
How many ways might …	