

Tools for Solidarity

Learning about Climate Change: Climate Action



Education for Sustainable Development Session 8

Materials required

- presentation 8 and several copies of board game (available to download from TFS website)
- material for board game (dice, counters, plenty of CO₂ tokens - can be squares of scrap paper)
- "Cards against Climate Change" - cut out cards below

Session 8 Outline

Revision

Do you remember the 3 fossil fuels?

What is a greenhouse gas? Can you give an example of one?

Why are there more greenhouse gases in the atmosphere now than ever before?

Why is this a problem?

Name some effects of climate change.

Is climate change affecting everyone in the same way? Unfortunately, those who are already struggling to afford their basic needs are being hit hardest by the effects of climate change.

Climate Change Game

Today we are going to play a game. You are on a journey, exploring the world and learning about climate change. First of all we need to talk about the rules.

Everybody takes turns and rolls the dice. The youngest person begins. Move forward the number of spaces the dice lands on.

Each space will relate to a question, challenge or piece of information. The numbers on the board game match the numbers in the questions section. So for example if you land on space 6 you need to look at number 6 in the question section. Try your best to answer the questions and do the challenges.

During the game each player will collect CO₂ emission tokens. Your aim is to finish the game with the least CO₂ tokens.



Climate Change Game

CO₂ stands for carbon dioxide. We already revised this earlier. I am just going to remind you what carbon dioxide is because it is very important for understanding the game.

Carbon dioxide is one of the greenhouse gases which cause climate change. It traps heat in the atmosphere which makes the earth warmer. While there has always been some CO₂ in the atmosphere, humans have been adding more and more in recent years.

Sometimes by taking action and making certain choices throughout the game, you will be able to get rid of some CO₂ tokens. If this happens you can just put them back in the envelope or discard pile.

Keep in mind that it is not about finishing first! In the end, when everybody has crossed the finished line, the winner is the person with the fewest CO₂ tokens.

Does everybody understand the rules or are there any questions?

Okay, then we are going to give out the materials now and you can start the game.

(Give each group a board game, the three pages with the rules, a dice, counters for each player and about 50 CO₂ tokens – these can be scrap paper cut up and can be the same colour.)

(Monitor and help pupils with the game.)

Approaching the end of the game

(The game only ends when all players reach the finish. The first and second players can either become the reader of the questions section or help one of the other players on their journey. When all players are at the finish they can count the tokens to see who wins.)

(When a whole group is finished give them the 'Cards against Climate Change' activity.)

Here are 9 cards. Some of these are helpful actions against climate change, while 3 of them aren't helpful at all! Firstly, eliminate those that aren't useful and then choose two actions you want to start doing because they are helpful in saving our planet and limiting climate change. Lay them out on your desk. We will compare your ideas with the other groups after a while. It's okay if different groups have different answers but you should be able to explain why you selected your 2 top actions. For example it could be because you think they will have a big impact or because you think they are easy to carry out or inexpensive.

So, which of the actions did you eliminate because they aren't useful? (Take an answer from each table.)

And which ones did you find helpful? Do you want to start doing any of them? Are there any which you do already?

Very good! It is nice to hear that you want to make some changes. That's a good start!


Cards against Climate Change



It's over for planet Earth.
Move to Mars!

Eat less meat. Try not to eat
any meat on Mondays.

Drop big ice cubes into the
ocean every few years.



Organise a school protest to
get the word out about
climate change and inspire
others to take action!

Reduce the number of
journeys we make in the car.
Choose to walk or cycle
instead.

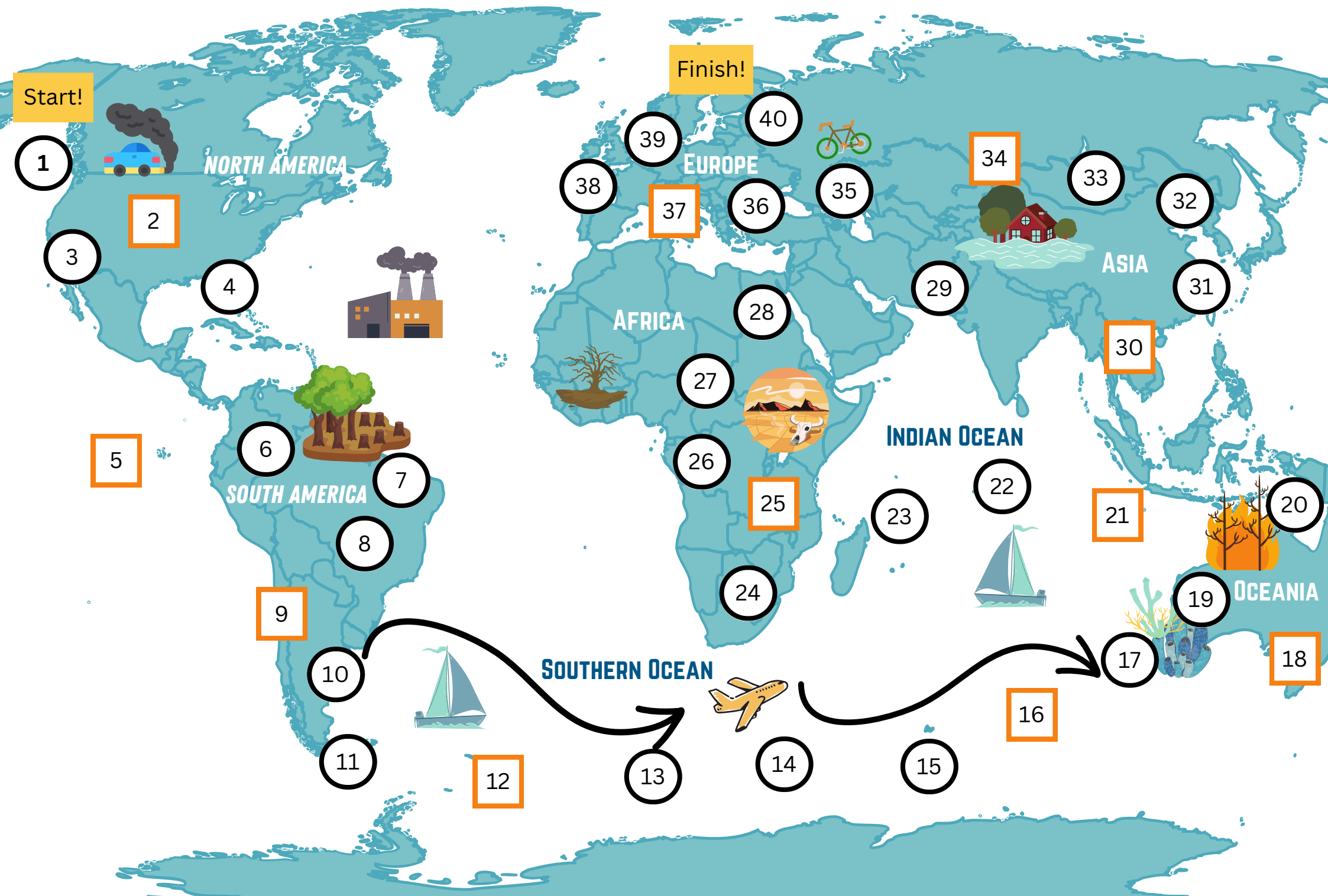
Help to restore nature and
wildlife. For instance, take
part in a tree planting event.

Reduce the number of
products we buy. When we go
shopping, ask ourselves, "Do I
really need this item?"
Instead, think about
borrowing and sharing more
often.

Hope that Doctor Who goes
back to the time of the
Industrial Revolution and
warns people about climate
change.

Buy food that is grown locally
and try to grow some of your
own food (e.g. some
vegetables).

Adapted from 'Cards Against Climate Change'. 'Cards Against Climate Change' is a free resource created by Green-Schools An Taisce © 2018. See further climate action resources here: www.greenschoolsireland.org



Start!

Finish!

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NORTH AMERICA

SOUTH AMERICA

EUROPE

AFRICA

INDIAN OCEAN

SOUTHERN OCEAN

ASIA

OCEANIA



4 - 5 players



8 - 11 years old

Rules of the game:

1. You are on a journey, exploring the world and learning about climate change.
2. Take turns and roll the dice. Move the respective number of spaces forward.
3. Each space is linked to a **question**, **challenge** or **information** (numbers on the board game match the numbers listed in the *Questions and Info* section).
4. During the game, each player will collect CO₂ (carbon dioxide) emission tokens.

CO₂ is a **greenhouse gas** which causes climate change. It traps heat in the atmosphere, making the earth warmer. While there has always been some CO₂, humans have been adding more and more to the atmosphere in recent years.

5. Sometimes by taking action and making certain choices, you will be able to get rid of some CO₂ tokens.
6. Keep in mind that it is not about finishing first! In the end, when everyone has crossed the finish line, the winner is the person with **the fewest CO₂ tokens**.

THE GAME: QUESTIONS AND INFO

NORTH AMERICA

1. You take the car to the Grand Canyon. While enjoying the hikes and the view you totally forget about the CO₂ emissions you created by taking the car. Take 3 CO₂ tokens!
2. Challenge: say the alphabet backwards! How far can you get?
3. You finally go to Disneyland! You go on rollercoasters the whole day and have a fun time. The rollercoasters use a lot of energy which is produced by powerplants which release CO₂ into the atmosphere. Take 2 CO₂ tokens.
4. You sit in a cafe in Florida. There is a news headline on TV - a hurricane is coming! You decide to stay inside and wait until it is over. Miss a turn - unless you answer the question correctly! What are the 3 fossil fuels?

SOUTH AMERICA

5. Sing *Happy Birthday* to whichever player has their birthday coming up next!
6. You are in the Amazon Rainforest and you see trucks driving through the forest. Workers are cutting down trees to create farmland. Deforestation means there are fewer trees taking CO₂ out of the atmosphere. Take 4 CO₂ tokens!
7. You take part in a tree-planting campaign. The new trees are absorbing some of the CO₂ that has been produced. Discard 1 CO₂ token!
8. Humans, animals and plant life suffer due to an extreme drought in central Brazil. Miss a turn!
9. Choose a job and without speaking, act it out to the other players. Can they guess it in under a minute?
10. You think of your boat trip to Oceania ahead of you and decide to take the plane instead. This allows you to get there faster. However it produces way more CO₂ emissions! Take 5 CO₂ tokens and go forward to space 17.

SOUTHERN OCEAN

11. You start your journey on the boat to Oceania. Take 1 CO₂ token.
12. Try to touch your nose with your tongue!
13. Name 2 actions you can do today to fight climate change! If you can think of 2, go forward 2 spaces!

SOUTHERN OCEAN

14. You look out the porthole and see parts of the iceberg breaking off because they are melting due to climate change. Take 1 CO₂ token.
15. Discard 1 CO₂ token if you get this question right.
What is methane?
a) a part of the human eye; b) long hair on a horse's neck; c) a greenhouse gas
16. Imitate a celebrity - the others have to guess who it is! 1 minute to guess!

OCEANIA

17. You can't take the motorway to Sydney because there is a wildfire ahead. Due to climate change, wildfires are 20% more likely to occur.* Vast forest areas are lost and many animals die. Take 2 CO₂ tokens.
18. Make up a chant about climate change!
19. You want to capture the beautiful nature of Australia so you buy a camera. The camera was produced in a factory which needs to burn fossil fuels to power the machines. This releases CO₂ into the atmosphere. Take 3 CO₂ tokens!
20. Large parts of the Great Barrier Reef (equivalent to the size of the U.K.) have died. This is because climate change has led to ocean temperatures rising.**

INDIAN OCEAN

21. Name 3 animals that start with a C!
22. Your ship is sailing near a big food transport ship. Transportation of food causes greenhouse gas emissions. You make a note to buy more locally grown food.
23. Discard 1 CO₂ token if you get this right. The greenhouse gases in the atmosphere...
a) cause earthquakes; b) trap heat; c) create more wind

AFRICA

24. You bought a new T-Shirt. Fossil fuels were burned in the factory where it was made in Pakistan. Then it was imported to South Africa. Take 2 CO₂ tokens.
25. Imitate an animal sound and see if the others can guess which animal it is!

AFRICA

26. The farmers of the village encourage you to grow grains that are more drought resistant, such as millet. Thanks to them, you are able to feed yourself even during drought periods. Move forward 2 spaces.
27. You are going on a safari to witness wild animals in their natural habitat. You are amazed by the nature around you. There are lions and giraffes! But then you remember that you are sitting in a jeep which is producing a lot of CO₂. Take 3 CO₂ tokens.
28. What if the solution to drought was planting more trees? You are taking part in a local project and you learn that forests can help protect the soil from extreme weather events. Moreover, trees provide shade, cool the area and take some CO₂ out of the atmosphere. Discard 1 CO₂ token.

ASIA

29. A flood can wash away houses and crops and contaminate the drinking water leaving people with no shelter or food. That is why in some villages they have adapted to the floods by creating floating gardens, raised homes, raised wells and even floating toilets.
30. You have to find something blue (e.g. a pencil case) in the room as quickly as possible. Ready, steady...go!
31. You are now walking in the streets of Shanghai. You are looking at the skyline but you can't really see through the smog produced by big industries. We call "smog" the air pollution that reduces visibility. Take 2 CO₂ tokens.
32. You can choose to do the next leg of your journey by car or by train. In the car you can stop whenever you want, but the train produces less CO₂ and other greenhouse gases. Make your choice and take the tokens!
- car (3 CO₂ tokens)
- train (1 CO₂ token)
33. On your way to a restaurant you walk past a dump where the rubbish is being burnt in order to get rid of it. Some items in the rubbish could have been reused. The burning process produces a lot of CO₂. Take 3 CO₂ tokens.
34. Try to wriggle your ears!

*<https://www.stern.de/panorama/great-barrier-reef-in-gefahr---klimawandel-bedroht-korallenriff-31932690.html>

**<https://www.spiegel.de/wissenschaft/natur/australien-was-der-klimawandel-mit-den-braenden-zu-tun-hat-a-03acb3d9-5a54-4791-b54a-281dce931592>

EUROPE

35. Your family is planning a holiday. Where would you like to go? Make your choice and take the tokens!
- go to Disneyland for three days (2 CO₂ tokens)
 - fly to Spain and relax at the beach (3 CO₂ tokens)
 - do a road-trip through Ireland (1 CO₂ token)
36. True or False? Climate Change is not fair.
37. Dance for 30 seconds!
38. People in your town (including you) have campaigned in support of green energy sources like wind power. Discard 1 CO₂ token.
39. If you answer correctly, move to the finish and discard 1 CO₂ token!
Which of these actions is helpful in limiting climate change?
- a) drive everywhere instead of using public transport
 - b) keep the TV on when you're not watching it
 - c) eat less meat
40. If you answer correctly, move to the finish and discard 1 CO₂ token! European countries are not at risk from rising sea levels. True or false?

Finish: Count your CO₂ tokens. Congratulations to the player with the fewest tokens!

Either do one jumping jack for each CO₂ token you collected or try balancing your pencil case on your head for the same number of seconds!

The average person produces 5000 kilograms of CO₂ each year. Imagine having to do this many jumping jacks or spend this amount of time balancing something on your head!***

ANSWERS

4. A: Gas, coal and oil - they are used for heating, transport, production (factories)...
13. Several possible answers - the other players must decide whether you've named 2 actions.
15. c) a greenhouse gas - cows produce it when they fart!
23. (b) trap heat
36. True! Climate change is not fair. Many people in different parts of the world who produce very few greenhouse gas emissions live with extreme consequences of climate change.

ANSWERS

39. c) eat less meat - we farm loads of cattle to keep up with people's demand for meat, but more cattle means more methane going into the atmosphere (this greenhouse gas is released when they fart or burp!)

40. False! Many people in Europe live in coastal regions where flooding is becoming more likely.

CO₂ Tokens

