

# Climate Change Dodgeball

A fast-paced game to show how increasing greenhouse gases causes global warming

9 - 12

Energy Sources & Sustainability



This active game can be used to scaffold pupils' scientific understanding of the **greenhouse effect** and **global warming** and prompt discussion on how our actions can make a difference.

## Discussion points:

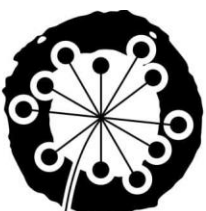
1. What does this game demonstrate? (How heat reflected from the surface of the earth is absorbed by greenhouse gases and stays in our atmosphere. The more greenhouse gases, the hotter the earth becomes.)
2. Did it seem like the Earth was suffering at the end? What caused the greenhouse gases to increase?
3. What can we do to prevent/mitigate human-caused climate change? What effects might we see where we live?

## Equipment

- A class set of bean bags
- Bibs of 3 different colours
- A chalked-out circle or pre-existing circular playground marking

## Activity

1. Divide the pupils into 2 groups, with twice as many placed in the centre of the circle as those forming a circle around them.
2. The pupils in the centre are Earth and wear blue bibs. Those on the outside are greenhouse gases and wear green bibs.
3. One individual is the Sun outside the atmosphere who throws "rays" in the form of bean bags at the Earth. Explain that the rays warm up everything on Earth which then gives out heat.
4. The Earth pupils repel the bean bags by throwing them back out of the circle. This represents the heat being reflected from the Earth's surface.
5. The Greenhouse Gases pupils try to catch or block the bean bags from leaving the circle and throw them back at the Earth.
6. The round ends when all the bean bags are outside the circle. Since most of the children are in the centre it should end quickly.
7. In subsequent rounds, increase the number of greenhouse gases pupils, explaining that there are more in the atmosphere due to human actions. It is then harder for the heat to escape the Earth's atmosphere.
8. At the end, you can put one brave pupil in the centre for dramatic effect.



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