

**A radio talk about climate change.****Optional exercise**

Read these notes that a student has taken while listening to the radio programme. Identify and correct three errors. (Answers below)

1. Greenhouse Effect: The sun heats the Earth which sends energy into Space. Radiation stays in the atmosphere. It warms the atmosphere and the Earth.
  2. Methane and commercial oil and gas from landfills cause damage to the Earth's surface.
  3. Burning fossil fuels has made the problem bigger.
  4. The formation of new oceans could slow down global warming.
  5. Global warming will cause worldwide problems simultaneously.
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Interviewer Doctor Grant, could you explain in a few words what The Greenhouse Effect actually means?

Doctor Grant Well, in simple terms ... the sun heats the Earth's surface and the Earth radiates energy back out into Space. Some of the radiation gets trapped in the atmosphere by greenhouse gases. This trapped radiation warms the atmosphere and some of it goes back down to the Earth, making it hotter than normal. This is the greenhouse effect.

Interviewer So, is carbon dioxide the problem?

Doctor Grant Yes ... and other gases too. Methane ... being released from paddy fields.... commercial oil and gas from landfills ... vegetation left to rot without oxygen ... These days there are more greenhouse gases than ever because of human activities and especially the burning of fossil fuels.

Interviewer What kind of problems do scientists foresee?

Doctor Grant Well, ice caps melting and sea levels rising mean that eventually cities like London, New York, Sydney and Tokyo will be submerged. This is difficult to imagine of course.

Interviewer It seems incredible ... no wonder scientists are worried.

Doctor Grant Well, some scientists are optimistic. They believe that positive feedbacks from ice clouds and their water vapour could have an impact on global warming. Other scientists are more sceptical. They suspect that we have been wrong in our initial analyses of the situation and might need to go back to the drawing board!

Interviewer So are you saying that some scientists don't believe in the Greenhouse Effect?

Doctor Grant No, I wouldn't go that far. In fact, without the Greenhouse Effect the planet would be frozen and no life forms would exist.

Interviewer Is there anything that could protect us from global warming?

Doctor Grant I'm glad you asked me that. Yes! Volcanoes! When a volcano erupts it throws debris up into the stratosphere. This protects the Earth from solar energy by scattering the sunlight.

Interviewer Of course the best thing that we can do is to address the problem seriously on a world level. That's where the Kyoto Treaty enters the picture. If all of the governments in the world would commit themselves to making a real effort to work together on this issue, we might be able to slow down the process and work out a solution.

Doctor Grant So ...how worried do we need to be?

Interviewer That depends. First of all global warming isn't going to affect all areas of the planet to the same degree. Things like the collapse of glaciers take hundreds of years so we are talking about a slow process here.

Doctor Grant Slow enough for us to do something to prevent a catastrophe?

Interviewer Well ... let's hope so!

**Answers**

1. Correct; 2. Incorrect: Methane and commercial oil and gas from landfills cause damage to the **atmosphere**. 3. Correct  
4. Incorrect: The formation of **ice clouds** could slow down global warming. 5. Incorrect: Global warming **isn't** going to affect all areas of the planet to the same degree.