# A Transcript of Earth Today – Episode 4

## Hosted by Brooke Dylan

**Brooke Dylan:** Hello and welcome to Earth Today. Joining us on today's show we have environmental specialist, Patricia Peters. It's so lovely to have you with us today, Patricia.

**Patricia Peters:** It's great to be here, Brooke. Thanks for having me on the show.

**Brooke Dylan:** So, you're quite the expert within your field, Patricia. Tell the viewers a bit about the latest news on our beloved planet's health.

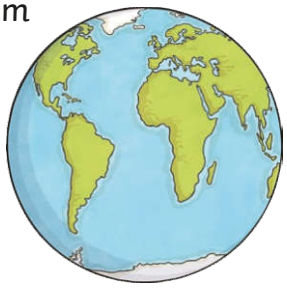
**Patricia Peters:** Well, each year, scientists look at how the Earth is changing and, unfortunately, it isn't for the better. Sea levels are rising, the polar ice caps are shrinking in size and weather is becoming more unpredictable and extreme, with more floods, hurricanes and tornadoes. Scientists have also noticed that animals have picked up on these changes too: insects are being born sooner to pollinate flowers which are blooming earlier, birds are laying their eggs sooner and some animals, such as bears, have stopped hibernating. Scientists know that these changes aren't happening at random, they are the result of global warming.

**Brooke Dylan:** That sounds terrifying, Patricia. For our younger viewers at home, can you explain to us a little bit more about global warming? Is it as simple as it sounds?

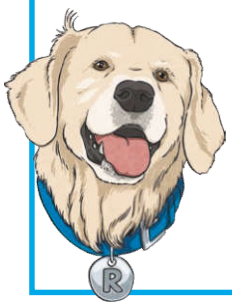
**Patricia Peters:** Global warming is the slow rise in the Earth's temperature of the Earth's. The planet Earth is naturally warmed up by rays from the sun, which pass through its atmosphere and are reflected back out into space.

**Brooke Dylan:** Sorry to interrupt Patricia but what is an 'atmosphere'?

**Patricia Peters:** Well, the atmosphere is a bit like a huge bubble which protects a planet. It is made of lots of different gases. Some of them are called 'greenhouse gases' because they keep the Earth nice and warm, like a greenhouse does for plants. They make a bit of a blanket around the Earth – keeping it warm but not too warm. With the right amount of greenhouse gases, the extra heat from the sun is reflected back out into space – keeping our lovely planet at just the right temperature for animals and plants to survive.



**Q1:** Find and copy **three** ways that the Earth is changing according to scientists.



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**Q2:** How does Patricia feel about the way that the Earth is changing? Use evidence from the text to support your answer.

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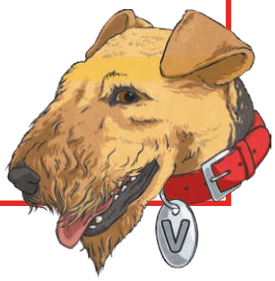
**Q3:** Which two words show that Patricia knows a lot about the planet Earth and its environment?



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**Brooke Dylan:** So, in a way, global warming is a good thing?

**Patricia Peters:** Yes! Without some global warming, our planet would be too cold to live on. However, the problem, Brooke, is the amount of greenhouse gases in our atmosphere at the moment. If we have extra greenhouse gases, the Earth's 'blanket' gets too thick. It's like having a thick quilt on the hottest summer day. The blanket traps too much heat in the Earth's atmosphere – that's when global warming becomes a bad thing.

**Brooke Dylan:** Ahhh, so that's why the polar ice caps are starting to melt.

**Patricia Peters:** Exactly. Earth is getting warmer and warmer year by year. Since 1900, the planet has only warmed up by around 0.8 degrees Celsius, which doesn't sound like much. However, by the year 2100, scientists have predicted that the Earth's temperature could be up to 5 degrees warmer than it is now.

**Brooke Dylan:** Surely that's not too bad, right? I mean, when I go on holiday to Spain, the temperature is more than five degrees hotter there than in England, isn't it?

**Patricia Peters:** If England's weather became like Spain's, and Spain's weather became like that of the deserts of Africa, how hot would the deserts become? An overall temperature rise of only 5 degrees Celsius around the whole of the planet Earth was all it took to bring us out of the last Ice Age. Imagine what that would do to the little ice we have left in our polar regions!


**Q4:** By how many degrees Celsius do scientists predict that the Earth's temperature could rise by the year 2100?

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**Q5:** Why do you think that Patricia compares excess greenhouse gases in the atmosphere as like 'a thick quilt on the hottest summer day'?

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**Q6:** Why doesn't Brooke think that the Earth's predicted rise in temperature is a bad thing?

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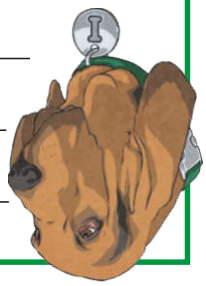


**Q7:** 'Imagine what that would do to the little ice we have left in our polar regions!' What effect does this sentence have on the reader?


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**Q8:** Describe how both Brooke and Patricia feel about the change in the Earth's temperature at this point of the transcript.

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**Brooke Dylan:** That sounds terrible, but why is the polar ice melting such a bad thing? We live in England.

**Patricia Peters:** There isn't a big wall around our country, Brooke. If temperatures rise enough to melt the polar ice caps, that water goes into the oceans and, when the oceans get more water, the sea levels rise. All of our cities on the coasts would flood.

**Brooke Dylan:** Oh no! I live on the coast!

**Patricia Peters:** Also, places that usually get lots of rain and snowfall could become hotter and drier because of the rise in the Earth's temperature. With less water and more droughts, plants and crops would not grow and some plants and animals could become extinct.

**Brooke Dylan:** This sounds awful, Patricia; I love animals.

**Patricia Peters:** That's not the worst of it, Brooke. Lakes and rivers could dry up, giving us less water for drinking, bathing and swimming. We could also see more hurricanes, tornadoes and storms which are caused by changes in heat. Life as we know it would be changed completely.

**Brooke Dylan:** Patricia, what can we do to sort this out? We cannot go on like this. I can't just stop going swimming!

**Patricia Peters:** Stay tuned and join us after this break to find out what you can do to tackle the biggest threat to our planet. We'll be right back.

**Q9:** Why doesn't Brooke initially think that the melting of the polar ice caps will affect her?

**Q10:** Which word in the text means that something has vanished from existence and will never return?

**Q11:** Why does Brooke suddenly start taking global warming seriously?

**Q12:** Summarise what you have learned about global warming from this transcript in 30 words or less.