Keep Scotland Beautiful

Eco-Schools

Your Questions

Question:
Are there any new animals appearing in Scotland as a result of climate change?

Answer:
Yes. Climate change is altering the natural environment faster than some species can adapt. This will also cause species who live elsewhere to move into Scotland as our climate becomes more suitable for them.

Some examples include: the Nuthatch

Warm water marine species such as Squid and European Anchovy are also appearing more often in Scottish waters.

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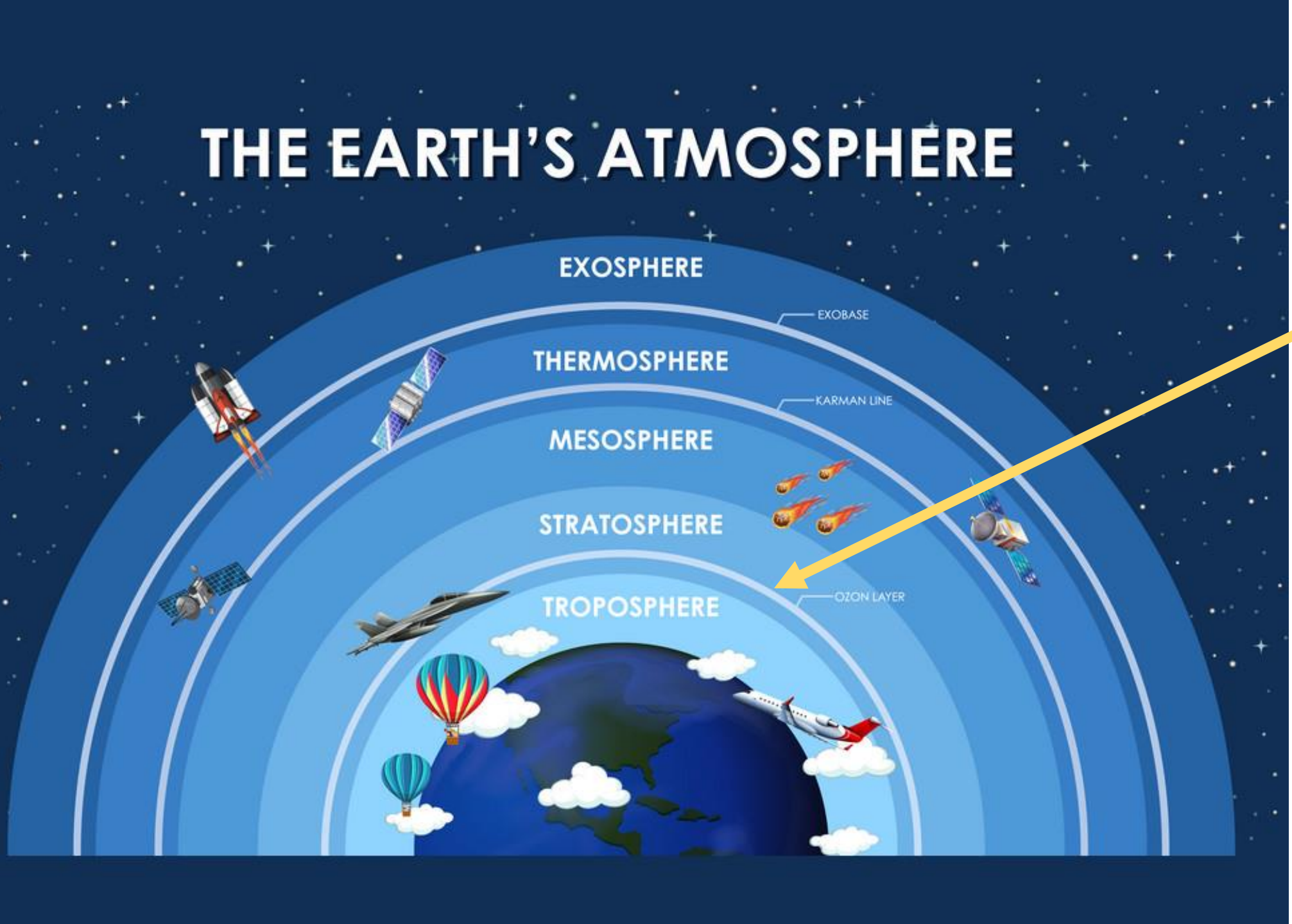
Question:
What is the difference between the ozone layer and greenhouse gases?

Answer:
The atmosphere is the thin layer of air that surrounds the Earth. It is made of various gases like oxygen, nitrogen, carbon dioxide and water vapour.

The ozone layer is a layer of ozone gas high in the stratosphere – think of the atmosphere like a giant layer cake of gases, with the stratosphere one of the layers.

The ozone helps to absorb harmful ultraviolet rays from the sun that cause sunburn to human skin and damage to plants. It also traps heat in the troposphere – the layer of atmosphere closest to Earth.



The ozone layer is right here.

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More Answer:

Ozone in the stratosphere where it belongs is **good**. We need the ozone layer to make life possible on Earth.

Greenhouse gases cause the atmosphere to trap more warmth on Earth (remember the blankets on Earth exercise from Monday?).

Some of them, called chlorofluorocarbons or CFCs (which you might remember Eve mentioning Wednesday) damage the ozone layer which can add to the greenhouse effect. Some CFCs were banned after they caused a hole in the ozone layer which is now getting smaller.

The Montreal Protocol was an international agreement in 1987 to limit and reverse the damage to the ozone layer.

More Answer:

How is this related to climate change? The Montreal Protocol was an agreement to phase out CFCs.

Phasing out CFCs has helped to remove a source of greenhouse gas emissions.

CFCs were replaced with HCFCs (hydrochlorofluorocarbons) which are also a powerful greenhouse gas but not as bad as CFCs.

Find out more about the ozone layer and the Montreal Protocol which helped to make it smaller in this resource from NASA.

Lastly, ozone in the wrong place is also bad for the environment and for human health. It is one of the main ingredients in smog.

Sources:

Ozone Depletion Explained – National Geographic

EO Kids: The Ozone Hole – NASA Earth Observatory

National Geographic Encyclopedia – Atmosphere

Marine and Coastal Change – Climate X Change

Impacts of Climate Change on Species – NatureScot

Nuthatch - RSPB

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