

9 Ozone depletion and climate change

– Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English**Write it 3 times** (English)

ozone layer

ultraviolet

CFCs

Montreal Protocol

greenhouse effect

greenhouse gases

methane

climate change

Recall

You have probably heard about these global problems:

- The “ozone hole” high in the atmosphere.
- Global warming and the greenhouse effect.
- Carbon dioxide building up from burning fuels.

This sheet lines up ozone depletion and climate change – two different problems. Each idea has a short worked example.

New ideas

■ 1 Ozone depletion

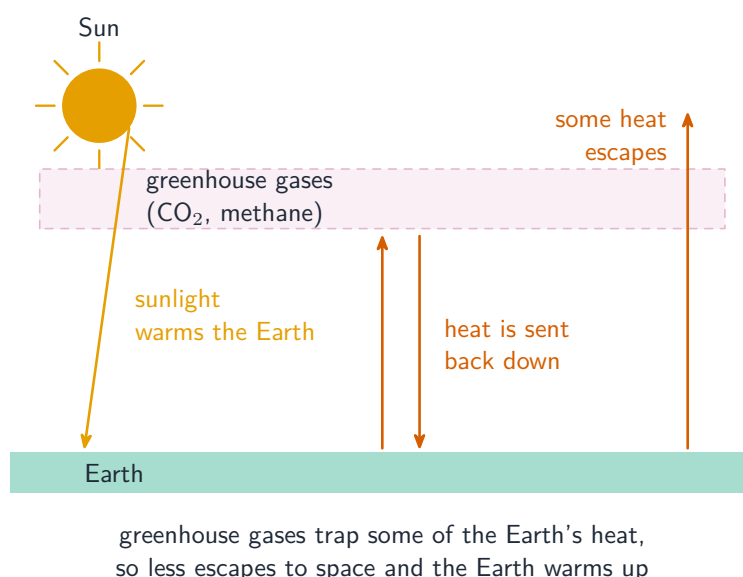
The **ozone layer** high up absorbs harmful **ultraviolet** rays. **CFCs** (once used in fridges and sprays) destroy ozone, thinning it (the ozone hole) and letting more UV reach the surface.

■ 2 A rare success

The **Montreal Protocol** (1987) banned CFCs worldwide, and the ozone layer is slowly recovering – a rare environmental success story.

■ 3 The greenhouse effect

The **greenhouse effect** keeps Earth warm: **greenhouse gases** let sunlight in but trap the heat the Earth gives off. This is natural and makes Earth livable.



■ 4 Climate change

Humans add extra greenhouse gases – CO₂ from burning fuels and **methane** from livestock – strengthening the effect. This causes **climate change** : warming, melting ice, rising seas, and more extreme weather.

Watch out: ozone depletion and climate change are **two different problems**. Ozone depletion is CFCs letting in more UV; climate change is greenhouse gases trapping more heat. Don't mix them up.

Practice

Try these in order. The methods are all above.

2.1 State what the ozone layer does and what damages it. [2]

2.2 State why the Montreal Protocol is considered a success. [2]

2.3 Explain the natural greenhouse effect. [2]

2.4 Name two greenhouse gases and a human source of each. [2]

2.5 State one difference between ozone depletion and climate change. [2]
