

Test your knowledge on the ozone layer, ozone depleting substances and synthetic greenhouse gases

1. Which of the following are ozone depleting substances?

- Chlorofluorocarbons (CFCs) a.
- Hydrofluorocarbons (HFCs) b.
- Hydrochlorofluorocarbons (HCFCs) c.
- Carbon dioxide (CO₂) d.
- Both a. and c. e.

What is an ozone molecule formed from? 2.

- 3 oxygen atoms a.
- 3 carbon dioxide atoms b.
- 2 carbon dioxide atoms c.
- 2 hydrogen atoms and 1 oxygen atom d.

What is global warming potential (GWP)? 4.

a. The effectiveness of an air conditioning system. The higher the global warming potential, the better the system at heating a room but the worse at cooling a room.



b. A measure of the amount of heat trapped in the atmosphere by a certain mass of gas compared to the amount of heat

trapped by a similar mass of carbon dioxide.

- The net contribution of Antarctic wildlife to c. synthetic greenhouse gas emissions.
- d. The global temperature rise scientists predict would occur without the phase-down of synthetic greenhouse gases.



Honk

- out ozone depleting substances and phasing down hydrofluorocarbons (HFCs)?
- a. Vienna Protocol
- b. Montreal Protocol
- Paris Agreement c.
- d. Antarctic Convention



- What is the (approximate) global 5. warming potential (GWP) of hydrofluorocarbon HFC-134a?
- 130 a.
- 2200 b.
- 1430 c.
- HFC-134a does not have a global warming potential. d.





6. Which of the following have ozone depleting substances and synthetic greenhouse gases commonly been used for?

- a. Asthma puffers
- b. Refrigerators and air conditioners
- c. Propellants in aerosol products
- d. All of the above

7. What is the difference between synthetic greenhouse gases and other greenhouse gases?

- a. Greenhouse gases are found in greenhouses, synthetic greenhouse gases are not.
- b. Greenhouse gases occur naturally and through human activity, synthetic greenhouse gases only occur through human activity.
- c. Synthetic greenhouse gases all contain silicon, other greenhouse gases do not.
- d. Both a. and b.



8. How much ozone can one kilogram of halon 1211 destroy?

- a. 1 kilogram
- b. 100 tonnes
- c. 50 kilograms
- d. 50 tonnes

9. Which of the following can still legally be produced in Australia?

- a. Hydrofluorocarbons (HFCs)
- b. Hydrochlorofluorocarbons (HCFCs)
- c. Chlorofluorocarbons (CFCs)
- d. Both a. and b.

10. When do scientists predict the ozone layer will heal and return to pre-1980 levels?

- a. Between the years 2050 and 2065
- b. By the year 2030
- c. Between the years 2080 and 2090
- d. By the year 3000

Photos: (Page 1) A selection of prohibited products relevant to OPSGG program, including 'Fron 12' freon air cond recharge kit (image taken as part of the Ozone Protection and Synthetic Greenhouse Gas [OPSGG] program) © Copyright Department of the Environment and Energy International flags alongside Lake Burley Griffin in Canberra, Arthur Mostead

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Staff at greenhouse, Australian National Botanic Gardens © Copyright Department of the Environment and Energy

Clouds, clean air, blue sky, taken from plane $\ensuremath{\mathbb{G}}$ Leanne Chow

Answers: 1e, 2a, 3b, 4b, 5c, 6d, 7b, 8d, 9a, 10a.

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