

# 9G Environmental chemistry

## Extension questions

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Answer the following questions:



Click mouse to reveal answer

- Q1. What is a glass building where plants are grown called?
- Q2. Name the greenhouse gas produced when fossil fuels are burnt?
- Q3. Name the process used by green plants to convert light energy to chemical energy?
- Q4. What do we call all the raw materials on the earth?
- Q5. What type of light, just beyond the visible spectrum, causes cataracts and skin cancer?
- Q6. What do you call chemical or radioactive contamination of the environment by humans?
- Q7. What is liquid pollution from the skies that kills trees and lakes called?
- Q8. What are valuable chemical compounds found in the earth's crust called?
- Q9. What is the visible form of energy called?
- Q10. What is the process where the average temperature of the earth increases called?
- Q11. Name the form of oxygen that protects us from harmful ultraviolet radiation?
- Q12. What is the very high region of the atmosphere where jet airliners fly called?
- Q13. What are petrified (stony) remains of prehistoric plants and animals called?
- Q14. What do we call a substance like oil, coal or gas that is burnt in air to release chemical energy?
- Q15. Where does all our energy originally come from?
- Q16. Give the chemical name of "natural gas". It is also produced in large volumes by cattle?
- Q17. What do we call calcium carbonate as a sedimentary rock?

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### Answers:

- A1. Greenhouse
- A2. Carbon dioxide
- A3. Photosynthesis
- A4. Resources
- A5. Ultra-violet
- A6. Pollution
- A7. Acid rain
- A8. Minerals
- A9. Light
- A10. Global warming
- A11. Ozone
- A12. The stratosphere
- A13. Fossils
- A14. Fuel
- A15. The sun
- A16. Methane
- A17. Limestone

## multiple choice

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Click mouse to reveal answer

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1: What is the pH of heavily polluted rainwater ?

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A pH 8

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B pH 7

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C pH 2

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D pH 5

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2: What is the main source of sulphur which then causes acid rain ?

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A Forest fires

---

B Earthquakes

---

C Burning fossil fuels

---

D Photosynthesis in plants

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3: A marble statue undergoes what type of weathering in city air ?

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A Biological

---

B Chemical

---

C Physical

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D Erosion

---

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4: What causes algal blooms in rivers, lakes and seas ?

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A High summer temperatures

---

B Low rainfall

---

C Acid rain

---

D Nitrates from farming

---

## multiple choice

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Answer all the questions below:



Click mouse to reveal answer

1) Unscramble the following words:

oisl

weathnerig

utiolpoln

gueenrohse

2) Make three sentences using the following nine words or phrases:

acid rain caused by  
greenhouse effect  
rock cycle

pollutants like  
global warming  
breakdown

sulphur dioxide  
carbon dioxide  
rock formation

3) Match the word or phrase with the right meaning:

Global warming



Describes whether a substance is an acid or alkali

Pollution



The gradual increase in World average temperatures

pH



Human activities that affect our natural environment

## literacy in science

Answer all the questions below:

1) Unscramble the following words:

soil

weathering

pollution

greenhouse

2) Make three sentences using the following nine words or phrases:

acid rain caused by  
greenhouse effect  
rock cycle

pollutants like  
global warming  
breakdown

sulphur dioxide  
carbon dioxide  
rock formation

3) Match the word or phrase with the right meaning:

Global warming



The gradual increase in World average temperatures

Pollution



Human activities that affect our natural environment

pH



Describes whether a substance is an acid or alkali

## complete the sentence

Place the right word or words to complete the sentence:



Click mouse to reveal answer

trees

acidic

organic

wheat

gases

ozone

causes

clean

emissions

- a) Soil that is too \_\_\_\_\_ can be neutralised by adding an alkali like lime.
- b) Soil contains rotting \_\_\_\_\_ material as well as weathered rock particles.
- c) Soil provides a growing crop like \_\_\_\_\_ or corn with all its minerals and moisture.
- d) A good way of reducing your carbon dioxide \_\_\_\_\_ is to not use the car.
- e) The two major \_\_\_\_\_ of acid rain are carbon dioxide and sulphur dioxide.
- f) Acid rain can damage the delicate leaves of \_\_\_\_\_ and plants.
- g) Some kinds of lichen can tell you how \_\_\_\_\_ the air is around your town or city.
- h) The \_\_\_\_\_ layer protects us against the harmful effects of UV radiation.
- i) Global warming is caused by greenhouse \_\_\_\_\_ like carbon dioxide and methane.

## complete the sentence

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- Soil that is too acidic can be neutralised by adding an alkali like lime.
- Soil contains rotting organic material as well as weathered rock particles.
- Soil provides a growing crop like wheat or corn with all its minerals and moisture.
- A good way of reducing your carbon dioxide emissions is to not use the car.
- The two major causes of acid rain are carbon dioxide and sulphur dioxide.
- Acid rain can damage the delicate leaves of trees and plants.
- Some kinds of lichen can tell you how clean the air is around your town or city.
- The ozone layer protects us against the harmful effects of UV radiation.
- Global warming is caused by greenhouse gases like carbon dioxide and methane.