

EARTH & ATMOSPHERE

Questions

Q1. Four gases were present in the Earth's early atmosphere.

Figure 1 shows the percentages of these gases thought to have been present.

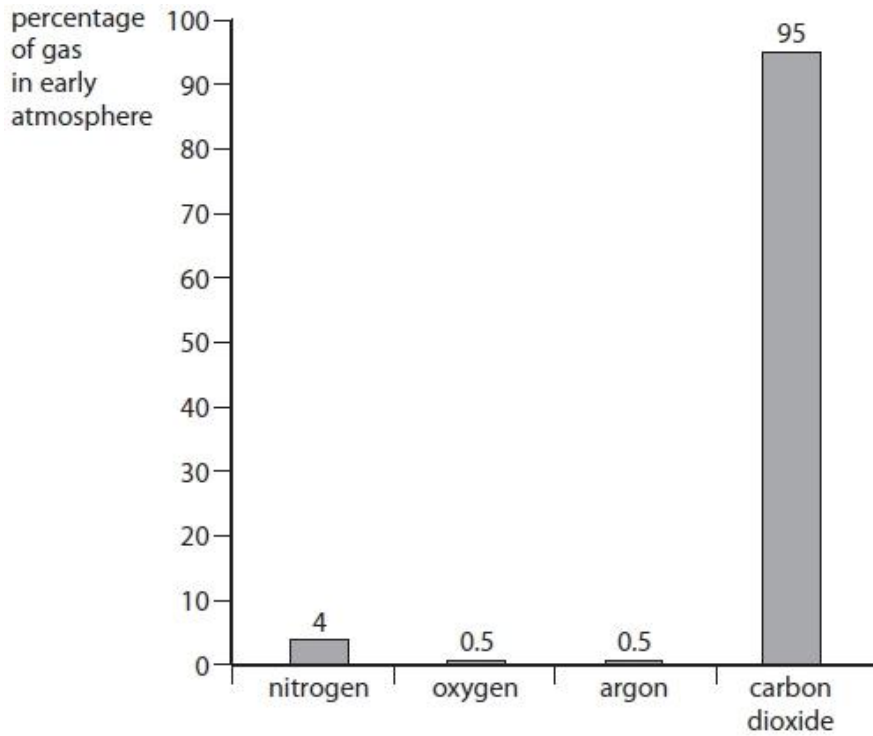


Figure 1

Figure 2 shows the percentages of these four gases in the atmosphere of the Earth today.

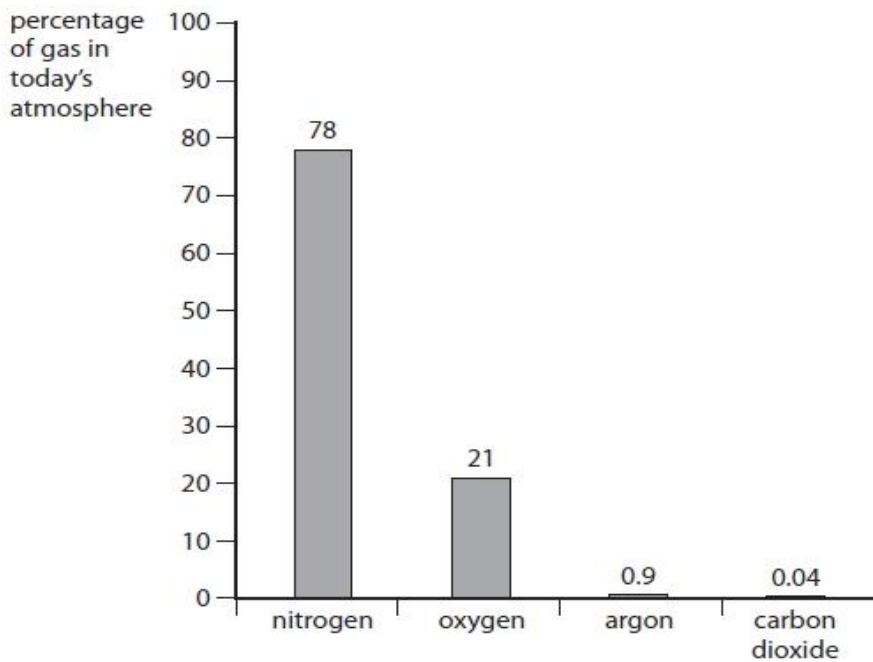


Figure 2

Which of the four gases has decreased by the largest percentage from the Earth's early atmosphere to today's atmosphere?

(1)

- A argon
- B carbon dioxide
- C nitrogen
- D oxygen

(Total for question = 1 mark)

Q2.

(a) Complete the sentence by putting a cross (☒) in the box next to your answer.

The Earth's earliest atmosphere is thought to have been formed by

(1)

- A animals breathing
- B photosynthesis in plants
- C the oceans cooling
- D gases from volcanoes

(b) (i) Complete the sentence by putting a cross (☒) in the box next to your answer.

The Earth's earliest atmosphere contained large amounts of carbon dioxide.
The percentage of carbon dioxide in the Earth's atmosphere today is

(1)

- A less than 1%
- B 5%
- C 21%
- D 78%

(ii) Write the formula of a molecule of carbon dioxide.

(1)

.....

(iii) The percentage of carbon dioxide in the atmosphere has decreased since the Earth's earliest atmosphere.

Explain what has caused the amount of carbon dioxide in the atmosphere to decrease.

(2)

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(iv) State one human activity that increases the amount of carbon dioxide in the atmosphere today.

(1)

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Q3.

Figure 2 shows the concentration of carbon dioxide in the atmosphere above Hawaii from 1960 to 2010.

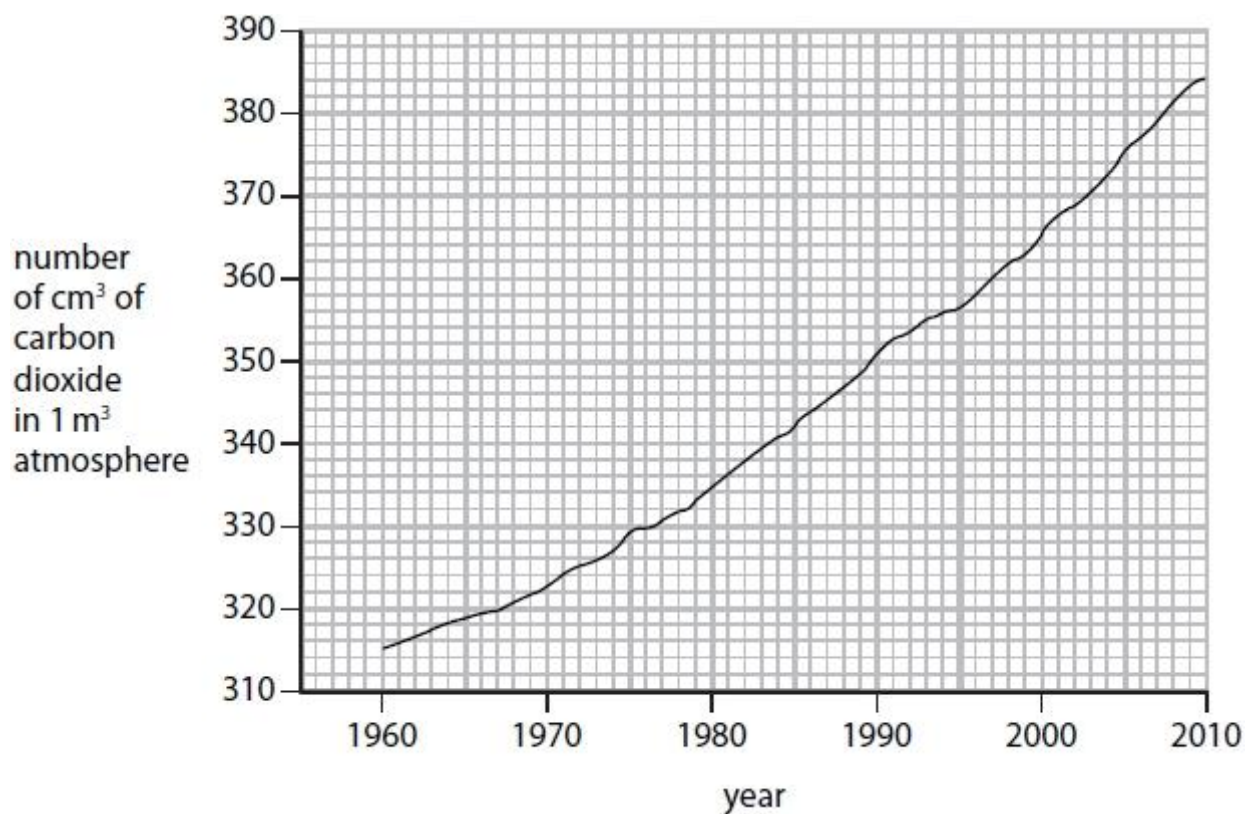


Figure 2

(i) Use the graph to calculate the increase in the volume of carbon dioxide in 1 m³ of atmosphere from 1960 to 2010.

(2)

increase in volume of carbon dioxide = cm³

(ii) Describe how carbon dioxide is released into today's atmosphere.

(2)

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.....
.....
.....

(Total for question = 4 marks)

Q4

The composition of the Earth's earliest atmosphere was different to that of the present atmosphere.

(i) Which of these gases was present in large amounts in the Earth's earliest atmosphere?

Put a cross () in the box next to your answer.

(1)

- A** oxygen
- B** carbon dioxide
- C** ammonia
- D** nitrogen

(ii) The Earth's early atmosphere contained a larger percentage of water vapour than the Earth's atmosphere today.

Explain what happened to cause the percentage of water vapour in the Earth's atmosphere to decrease.

(3)

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