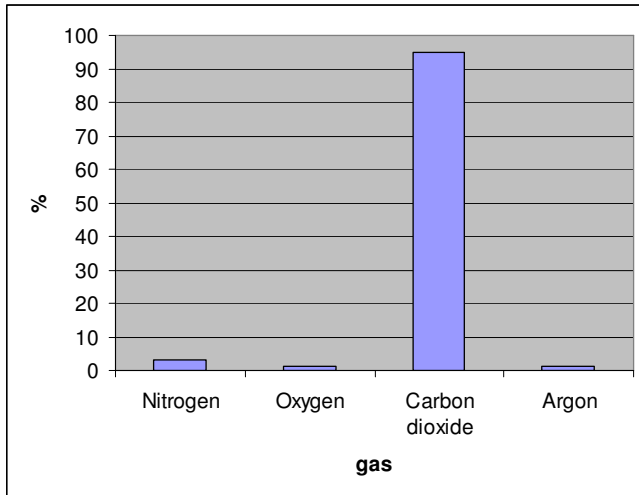
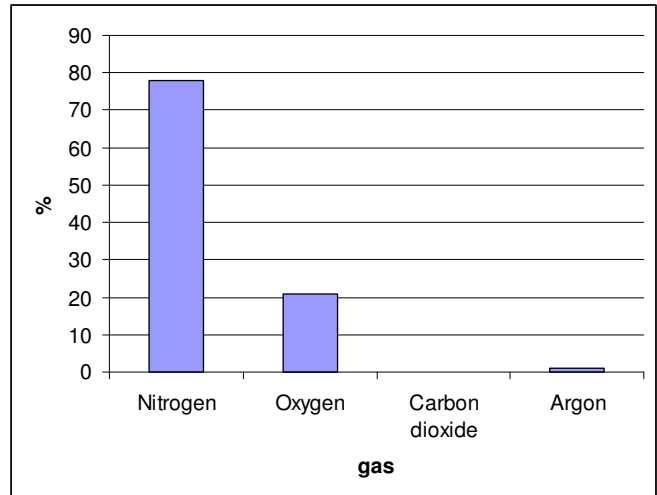


## Environment HSW HW2 Yr 8 The Earth's Atmosphere Homework



**Atmosphere on Mars**



**Atmosphere on Earth**

1) The graphs above show the composition of the atmosphere on Earth and Mars

a) State two similarities between the atmospheres on the two planets

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(2 marks)

b) State two differences between the atmospheres on the two planets

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(2 marks)

2) The Earth's atmosphere contains a number of gases that are present at levels below 1%. Complete the table for some of these gases. (12 marks)

| Name            | Formula | Diagram   | Element or Compound | Number of particles in formula | Number of different atoms in formula |
|-----------------|---------|---|---------------------|--------------------------------|--------------------------------------|
| Methane         |         | $  \begin{array}{c}  \text{H} \\    \\  \text{H}-\text{C}-\text{H} \\    \\  \text{H}  \end{array}  $ |                     |                                | 2                                    |
| Argon           | Ar      |   |                     | 1                              |                                      |
| Water           |         |   |                     | 3                              | 2                                    |
| Carbon monoxide | CO      |   | Compound            |                                |                                      |

3) Describe how the evolution of green plants changed the Earth's atmosphere and how they continue to take part in the carbon cycle.

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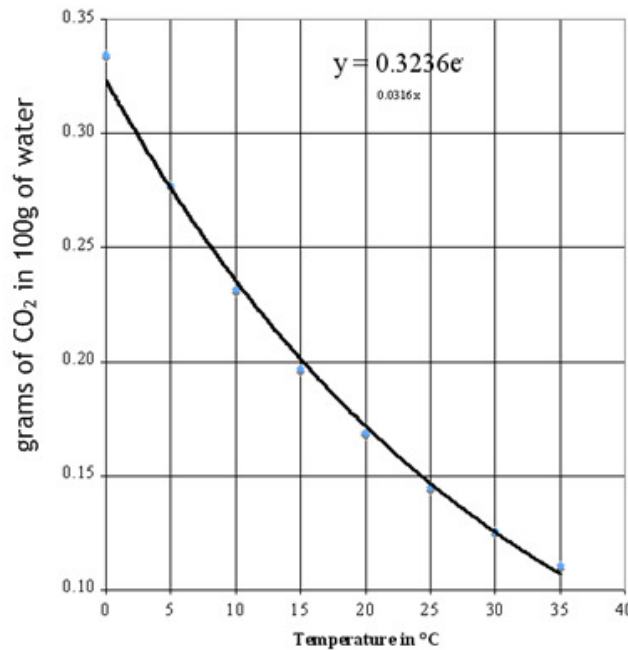
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(3 marks)

4) The graph below shows how the solubility of carbon dioxide in water varies with temperature



- a) How much CO<sub>2</sub> is soluble in 100g of water at 15°C \_\_\_\_\_ (1 mark)
- b) How much CO<sub>2</sub> is soluble in 100g of water at 30°C \_\_\_\_\_ (1 mark)
- c) How much CO<sub>2</sub> is soluble in 500g of water at 5°C \_\_\_\_\_ (1 mark)

d) Scientists have measured the temperature of the planet over the last 50 years and have noted that it is slowly increasing: this is **global warming**. It is believed that global warming is caused by increasing concentrations of CO<sub>2</sub> in the atmosphere from human activity. If scientists are right, why should this graph cause us concern for future? (3 marks)

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| Mark  | Level |
|-------|-------|
| 0-4   | N     |
| 5-9   | 3     |
| 10-14 | 4     |
| 15-19 | 5     |
| 20-25 | 6     |

Total = /25  
Level =

Name .....

Target level .....