

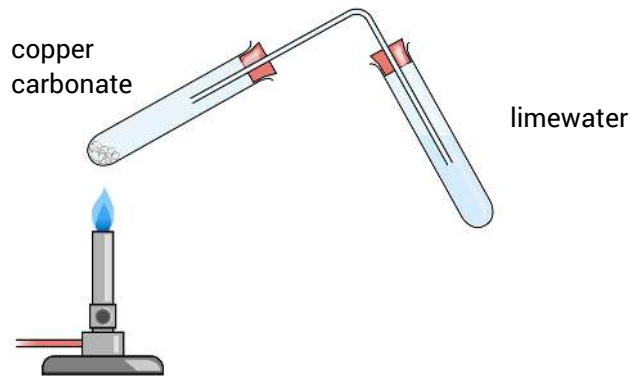
0 1

Carbon dioxide is produced when copper carbonate is heated.

A student investigated heating copper carbonate.

The student used the apparatus to measure how long it took for carbon dioxide to be produced.

The student also noted what happened during each minute for three minutes.



0 1

1

The student used changes to the limewater to measure how long it took for carbon dioxide to be produced.

Describe how.

[2 marks]

time from when the heating is started until [1]

the limewater turns cloudy / milky [1]

0 2

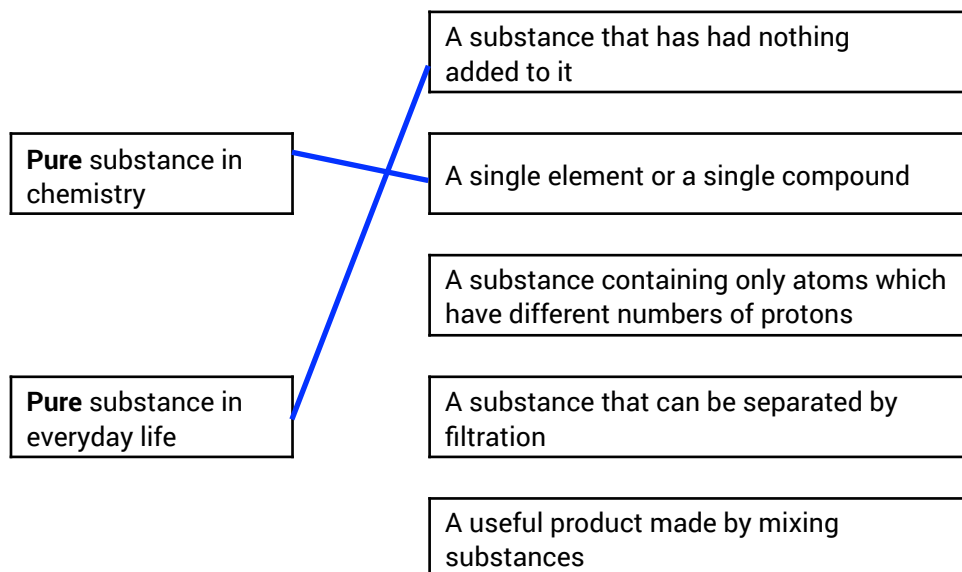
1

Draw **one** line from each context to the correct meaning.

[2 marks]

Context

Meaning



Allow 1 mark for the correct meanings linked to context but incorrect way around

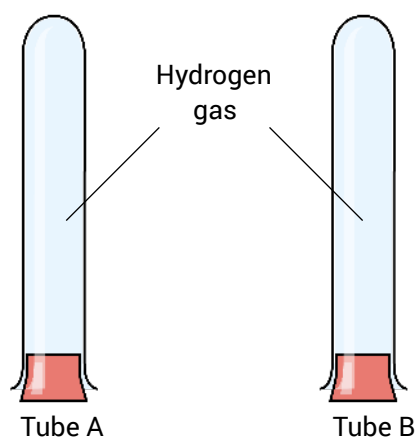
0 2 . 2

What is the test for chlorine gas?

[1 mark]

Tick **one** box.A glowing splint relights A lighted splint gives a pop Damp litmus paper turns white Limewater turns milky

0 3

A teacher collected two tubes full of hydrogen gas, as shown in **Figure 3**.**FIGURE 3**

She tested tube **A** with a lighted splint as soon as she took the bung out.
She tested tube **B** with a lighted splint a few seconds after taking the bung out.

0 3 . 1

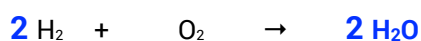
Suggest why tube **B** gave a much louder pop than tube **A**.

[1 mark]

.....
 Tube B gave a louder pop because the hydrogen had time to mix
 with oxygen / air (idea of letting air / oxygen in) [1]

0 3 . 2

Complete and balance the chemical equation for the reaction that takes place
 when the hydrogen reacts in this test. [2 marks]

(1 mark for H₂O, 1 mark for correct balancing)

(Total 8 marks)

DON'T FORGET : It is important that the 2 in the H₂O is subscript (i.e. not H₂O)

End