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.


| $\mathbf{0}$ | $\mathbf{1}$ |
| :--- | :--- |$\quad$| $\mathbf{1}$ |
| :--- |
| The student used changes to the limewater to measure how long it took for |
| carbon dioxide to be produced. |

Describe how.
$\qquad$
$\qquad$
$\qquad$
$\qquad$


Draw one line from each context to the correct meaning.

## Context

## Meaning

A substance that has had nothing added to it

Pure substance in chemistry

A single element or a single compound

> A substance containing only atoms which have different numbers of protons

Pure substance in everyday life

A substance that can be separated by filtration

A useful product made by mixing substances


What is the test for chlorine gas?
Tick one box.

A glowing splint relights


A lighted splint gives a pop $\square$

Damp litmus paper turns white $\square$

Limewater turns milky $\square$
A teacher collected two tubes full of hydrogen gas, as shown in Figure 3.
Figure 3


She tested tube $\mathbf{A}$ 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.


Suggest why tube B gave a much louder pop than tube A.
$\qquad$
$\qquad$
$\qquad$
$\qquad$


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

(Total 8 marks)

End

