

The decomposition of hydrogen peroxide solution is often used to make oxygen gas using the apparatus below:

1



This is the word equation for the reaction:

## hydrogen peroxide $\longrightarrow$ oxygen + water

Complete the balanced symbol equation (including state symbols) for this reaction.

[2 marks]

[1]

[1]

[1]

2.  $H_2O_2(aq) \longrightarrow (1)O_2(q) + ... H_2O(1)$ 

## Correctly balanced [1] All correct state symbols

If you weighed the conical flask both before and after the reaction, how would you expect the mass at the end of the reaction to compare to the mass at the beginning?

[1 mark]

The mass at the beginning would be higher than the mass at the end *or vice versa* 

0

0

1

1

1

2

Both metals and non-metals can react with oxygen gas.

Because carbon dioxide will be lost/released as a gas

Explain, with a reason, how you would expect the mass of the solid reactant to change if the following substances were reacted with oxygen.



Carbon

The mass would decrease

[2 marks]

02.2

Calcium	[2 marks]
The mass would increase	[1]
Because oxygen atoms are added to the calcium to	form a <u>solid</u> product <i>or</i>
calcium oxide is a <u>solid</u>	[1]

(Total 7 marks)

End