

Worksheet 2.6.5 Exploring combustion**1 Complete combustion**

- a) Set out the equation for complete combustion using some of the cards from the top half of page 3. Write the equation below.

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- b) Which elements do hydrocarbons contain?

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- c) Give three examples of hydrocarbons.

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2 Incomplete combustion

- a) Explain why incomplete combustion may take place.

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- b) Write an equation for incomplete combustion. You can use the cards from the lower half of page 2.

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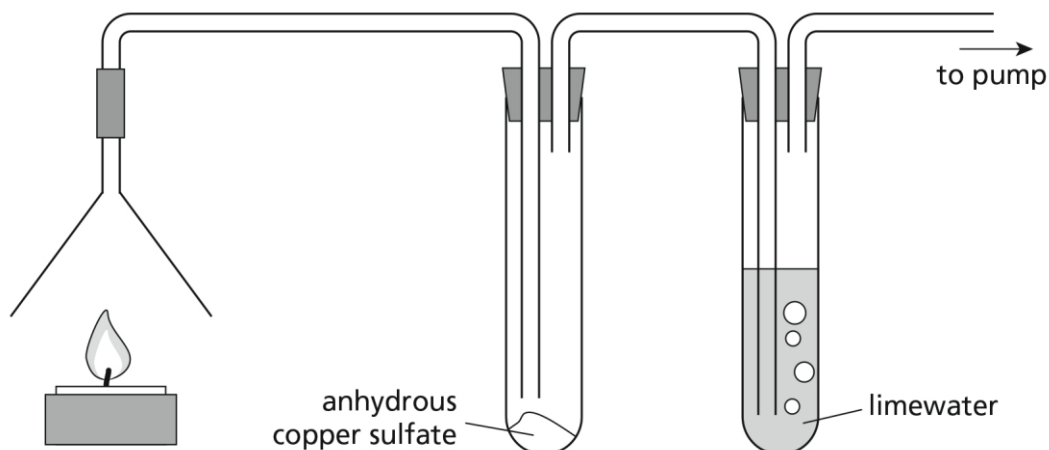
- c) Highlight in your equation the chemicals that are involved in both complete and incomplete combustion. Highlight in another colour those chemicals that are only involved in incomplete combustion.

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3 Comparing types of combustion

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- a) The apparatus below was used to show the products of complete combustion. The anhydrous copper sulfate turned blue and the limewater turned milky.



- i) Describe what this demonstration showed about complete combustion.

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- ii) Describe and explain what would happen to the anhydrous copper sulfate and limewater if incomplete combustion occurred.

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- b) Explain why incomplete combustion is more harmful to humans than complete combustion, using two examples.

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carbon dioxide	water	hydrocarbon
carbon	oxygen	+
→	+	+

carbon monoxide	water	hydrocarbon
carbon	oxygen	carbon dioxide
→	+	+