

0 6

This question is about the Earth's resources.

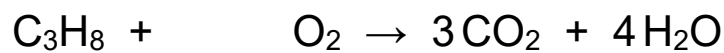
When most fuels burn carbon dioxide is produced.

Propane (C<sub>3</sub>H<sub>8</sub>) is a fuel.

0 6 . 1

Balance the equation for the combustion of propane.

[1 mark]



0 6 . 2

Describe the test for carbon dioxide.

Give the result of the test.

[2 marks]

Test \_\_\_\_\_

Result \_\_\_\_\_

0 6 . 3

Propane can be cracked to produce propene and hydrogen.

Complete the symbol equation for the reaction.

[1 mark]



0 6 . 4 Describe the test for hydrogen.

Give the result of the test.

[2 marks]

Test \_\_\_\_\_

Result \_\_\_\_\_

\_\_\_\_\_

0 6 . 5 Propene is an alkene.

Describe the test for alkenes.

Give the colour change in the test.

[3 marks]

Test \_\_\_\_\_

Colour change \_\_\_\_\_ to \_\_\_\_\_

9

**Turn over for the next question**

**Turn over ►**



Question	Answers	Extra information	Mark	AO / Spec. Ref.
06.1	$C_3H_8 + 5 O_2 \rightarrow 3 CO_2 + 4 H_2O$	allow multiples	1	AO2 5.1.1.1 5.7.1.3
06.2	(bubble gas through) lime water  turns milky / cloudy / white <b>or</b> white precipitate forms	MP2 is dependent upon correct response in MP1  allow (bubble gas through) calcium hydroxide (solution)	1  1	AO1.2 5.8.2.3
06.3	$C_3H_6$		1	AO2 5.1.1.1 5.7.1.4
06.4	burning / lit splint  burns with a (squeaky) pop sound	MP2 is dependent upon correct response in MP1  allow flame do <b>not</b> accept glowing splint  allow pops	1  1	AO1 5.8.2.1
06.5	bromine (water)  (colour change) orange  (to) colourless	do <b>not</b> accept bromide  } allow 1 mark for colourless (to) orange  ignore clear	1  1  1	AO1 5.7.1.4
<b>Total</b>			<b>9</b>	