CHEMISTRY YEAR 12 - MODULE 7 - LESSON 11

Combustion of Alcohols

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

Every time you light a spirit burner in the lab you are running the same fundamental experiment that engineers use to evaluate fuels — and the gap between your experimental result and the theoretical value tells you something real and important about the limits of simple calorimetry.

- Key facts and terms for Combustion of Alcohols
- How the main ideas in Combustion of Alcohols connect

2. Success Criteria

By the end, you should be able to:

- Key facts and terms for Combustion of Alcohols
- Where this lesson fits in Module 7
- How the main ideas in Combustion of Alcohols connect

3. Key Terms

draught shield
(b) Improvements: draught shield; repeat and average; cooling curve extrapolation; clean calorimeter; immediate reweighing.

water
The mass of the spirit burner decreases by 0.48 g and the water temperature rises by 13.4°C.

Hydrocarbon
An organic compound containing only carbon and hydrogen atoms.

Functional group
A specific atom arrangement determining characteristic chemical reactions.

Homologous series
A family of compounds with the same functional group, differing by CH_2.

Addition polymer
A polymer formed by monomers adding together without loss of atoms.

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "Key facts and terms for Combustion of Alcohols". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "Where this lesson fits in Module 7". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Combustion of Alcohols: "How the main ideas in Combustion of Alcohols connect".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Combustion of Alcohols but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Combustion of Alcohols?

☐ A. Identify the key concept being tested

☐ B. Write every fact from memory

☐ C. Ignore the command word

☐ D. Skip examples and evidence

2. Which answer would show stronger understanding of Combustion of Alcohols?

☐ A. An answer with accurate terms and reasoning

☐ B. A copied definition only

☐ C. A single-word response

☐ D. An answer with no example

3. What should you do if a question asks you to explain?

☐ A. Link the idea to a reason or cause

☐ B. List unrelated facts

☐ C. Only draw a diagram

☐ D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: Key facts and terms for Combustion of Alcohols

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: Where this lesson fits in Module 7

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How the main ideas in Combustion of Alcohols connect

BAND 5 4 MARKS

One thing I still need help with: