



**Read the exam style question carefully, then fill in each section below.**

**Question:**

Ethanol and ethanoic acid are both organic compounds.

- a. Compare the structures of ethanol and ethanoic acid. **(4)**
- b. Write a word equation to show the reaction between ethanol and ethanoic acid. **(2)**

**Section 1: At first glance**

1. What **command words** are used in this question? Circle them clearly.
2. **Underline the key information** in the question above.
2. **How many marks** is this question worth?

**Section 2: Thinking ahead**

Read the question again.

What do you need to know in order to answer this question really well?

Can you split the question into two or more parts?

Are there any labelled diagrams that might help you to show your answer?

What are the key words that you should include in your answer?

**Section 4: Space to plan**

Use this space to plan your answer.



## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Section 5: Mark Scheme

a.

Point	Mark
<ul style="list-style-type: none"> <li>both contain two carbon atoms</li> </ul>	1
<ul style="list-style-type: none"> <li>ethanol contains a hydroxyl (-OH) group</li> </ul>	1
<ul style="list-style-type: none"> <li>ethanoic acid contains a carboxyl (-COOH) group</li> </ul>	1
<ul style="list-style-type: none"> <li>both contain carbon, hydrogen and oxygen atoms</li> </ul>	1 from these points
<ul style="list-style-type: none"> <li>ethanol contains 6 hydrogen atoms while ethanoic acid only contains 4 hydrogen atoms</li> </ul>	
<ul style="list-style-type: none"> <li>ethanoic acid contains two oxygen atoms while ethanol contains one oxygen atom</li> </ul>	

b. Ethanol + ethanoic acid → ethyl ethanoate + water

1 mark for ester name

1 mark for water