1. Each of the organic molecules below belongs to a different functional group.

There is a carboxylic acid, an alcohol, an alkene and an alkane but they are muddled up.



**B**

**A**



**D**

**C**

Complete the table by writing each letter (A–D) into the correct box.

|  |  |  |  |
| --- | --- | --- | --- |
| **Carboxylic acid** | **Alcohol** | **Alkene** | **Alkane** |
| Answer: C | Answer: A | Answer: D | Answer: B |

1. George is asked by his teacher to draw out the structure of ethanoic acid.

He gives four possible structures, but only one is correct.

Which one is correct?

**B**

**A**



**C**

**D**

Answer: molecule C.

1. This question is about naming carboxylic acids.

A student has named the carboxylic acids below, but he has made some mistakes.

How many correct answers can you see?

Give him a mark out of 5 – one mark for each correct answer.

For any incorrect answers, add the correct names.

|  |  |
| --- | --- |
| *…Methanol…* | Answer: 🗴 Methanoic acid. |
| *…Pentanoic acid…* | Answer: 🗴 Propanoic acid. |
| *…Propanoic acid…* | **Answer:** 🗴 Pentanoic acid. |
| C:\Users\Owner\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\BFFCECC3.tmp*…Ethanoic acid…*  | **Answer:** 🗸 Ethanoic acid. |
| *…Butanoic acid…* | **Answer:** 🗸 Butanoic acid. |

Overall score: 2/5

1. Sarah and Dean carry out an experiment with ethanoic acid solution.

They add the substances in the left-hand boxes, and test any gas formed.

Draw straight lines to link together the substance added with the correct observation.

**Substance being added Observation**

Magnesium

Gas formed that turns limewater milky

Sodium hydroxide solution – an alkali

Gas formed that gives a squeaky pop

Chalk – calcium carbonate

No gas formed