

14–16 years

# Organic compounds and reactions

## Unscrambling definitions



**Education**  
Inspiring your teaching and learning

Downloaded from [rsc.li/4js7w2I](https://rsc.li/4js7w2I),  
student sheet and teacher notes  
with answers also available

# Unscrambled definitions

The **general formula** is a formula that represents every member of a particular homologous series, such as  $C_nH_{2n+2}$  for alkanes.

The **structural formula** shows the number and arrangement of the atoms of each element in one molecule, such as  $CH_3CH_2CH_3$  for propane.

The **displayed formula** is a type of structural formula that shows all the bonds between the atoms in the molecule, such as shown here for methane.

A **functional group** is a group of atoms that are responsible for the chemical properties of a compound, such as the  $-OH$  group in an alcohol.

## Unscrambled definitions continued

An **alkene** is a hydrocarbon with a C=C double bond which has the general formula  $C_nH_{2n}$  such as ethene and propene.

An **unsaturated hydrocarbon** is a hydrocarbon with a double or triple bond between one or more of the carbon atoms, such as an alkene.

An **alcohol** is an organic compound that contains an -OH functional group, such as methanol and ethanol.

A **carboxylic acid** is an organic compound that contains a -COOH functional group, such as methanoic acid and ethanoic acid.

# Connection completion

Choose the letter from the table below that contains the correct row of connective words to complete these sentences:

Alkenes are unsaturated hydrocarbons \_\_\_\_\_ they have a C=C double bond. It is \_\_\_\_\_ this double bond that all alkenes have similar chemical properties and, \_\_\_\_\_, the same general formula.

<b>A</b>	since	in spite of	thus
<b>B</b>	if	because of	sometimes
<b>C</b>	even though	instead of	hence
<b>D</b>	because	due to	furthermore

## Connection completion: completed sentences

Alkenes are unsaturated hydrocarbons **because** they have a C=C double bond. It is **due to** this double bond that all alkenes have similar chemical properties and, **furthermore**, the same general formula.