

# Worksheet 10.4

## Organic acids and esters

**1** Ethanoic acid is an organic acid and a member of a homologous series with the general formula  $C_nH_{2n+1}COOH$ .

**a** What is the name of this series?

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**b** What is the functional group of the series?

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**c** Ethanoic acid is a weak acid. What does the term 'weak acid' mean? Give an equation to help explain what is meant.

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**d** Draw the structural formula of the next member of the series, propanoic acid.

**2** Ethanoic acid reacts with ethanol in the presence of a few drops of concentrated sulfuric acid to form a sweet-smelling compound.

**a** Name the organic compound formed.

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**b** What type of compound is this?

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**c** The reaction is reversible. Write a symbol/equation for the reaction.

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d What is the function of the sulfuric acid?

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e What **two** compounds would you react together to obtain methyl propanoate?

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