

Name : \_\_\_\_\_ Grade/Section : \_\_\_\_\_

## WORKSHEET CHAPTER 28 ESTERS

### Properties of esters

1. Use the words in the box to complete the gaps below. Use each word only once.

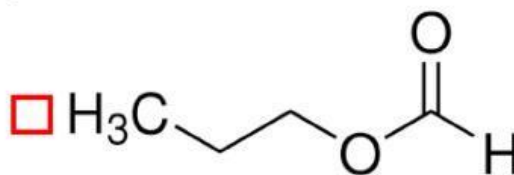
Missing words: alcohol, catalyst, condensation, esterification, ethyl, food, methanoic, organic, smell, sulfuric, water

Esters are \_\_\_\_\_ compounds which can be made by reacting an \_\_\_\_\_ with a carboxylic acid. The name given to this reaction is \_\_\_\_\_. During the esterification reaction \_\_\_\_\_ is also produced, so it is also a type of \_\_\_\_\_ reaction. Concentrated \_\_\_\_\_ acid is used as a \_\_\_\_\_ during esterification. If ethanol is added to \_\_\_\_\_ acid the ester produced would be \_\_\_\_\_ methanoate. Esters are widely used in \_\_\_\_\_ flavourings due to the pleasant \_\_\_\_\_ they produce.

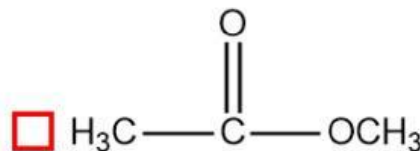
### The structure of esters

2. Connect the esters to the correct display formula.

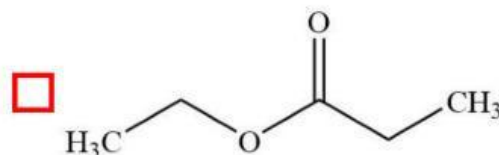
a. Methyl ethanoate



b. Ethyl propanoate



c. Propyl methanoate



3. For each of the reactions give the name of the ester produced.

- Propan-1-ol and ethanoic acid
- Methanol and methanoic acid
- Ethanol and propanoic acid