

Dalkeith High School

Unit 2

National 4/5

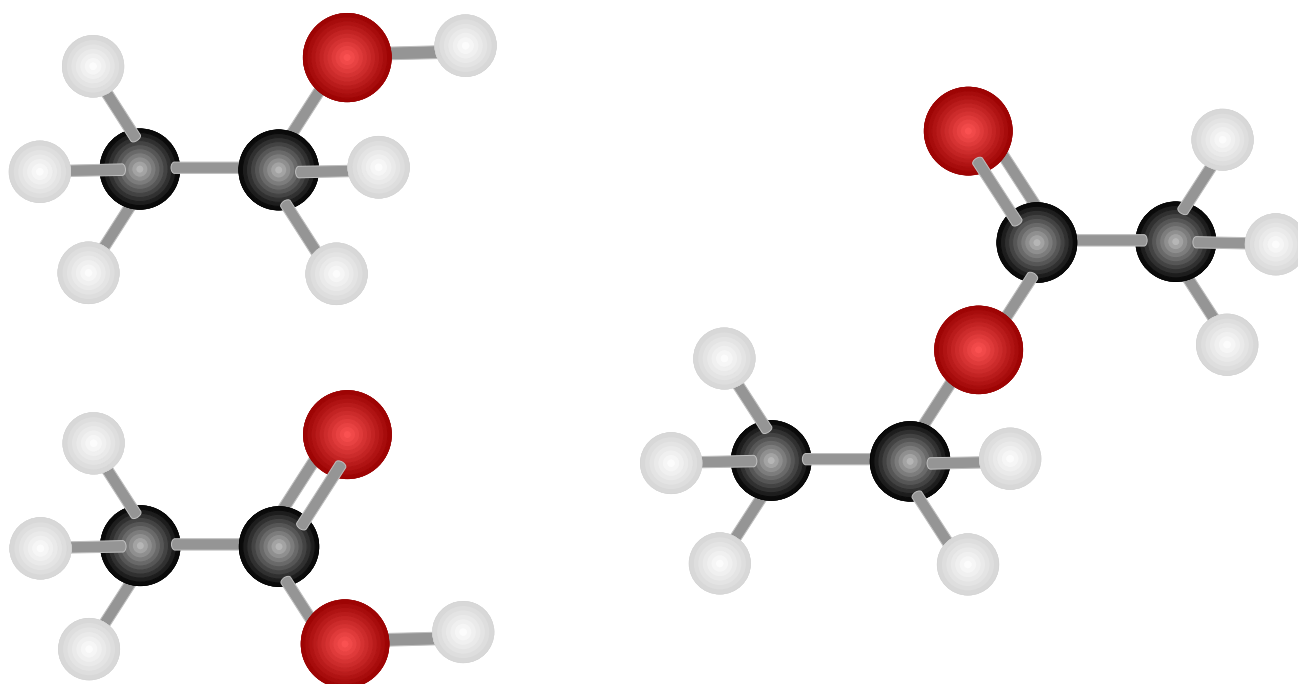
Homework questions

NATIONAL 4 AND NATIONAL 5 CHEMISTRY

Unit 2: Nature's Chemistry

Topics 3 & 4

ALCOHOLS, ACIDS & ESTERS



PRACTICE EXAMPLES BOOKLET

N5**SYSTEMATIC NAMING - ALKANOLS****N5**

1. Draw **full structural formula** and **shortened structural formula** of each of the following molecules.

(a) ethanol

(b) butan-2-ol

(c) 3-methylpentan-1-ol

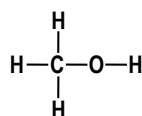
(d) 2,4-dimethylhexan-1-ol

(e) 3-ethylheptan-2-ol

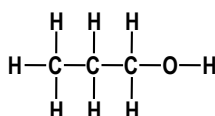
(f) 2-methylbutan-2-ol

2. Write the systematic name of the following alkanol molecules

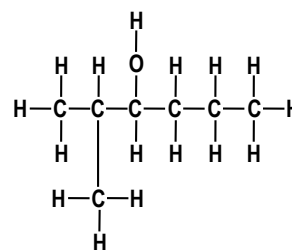
(a)



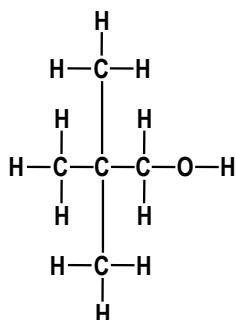
(b)



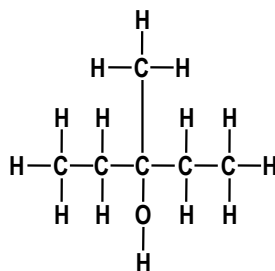
(c)



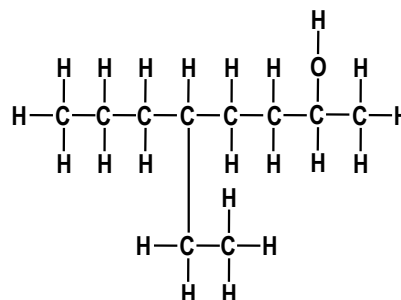
(d)



(e)



(f)



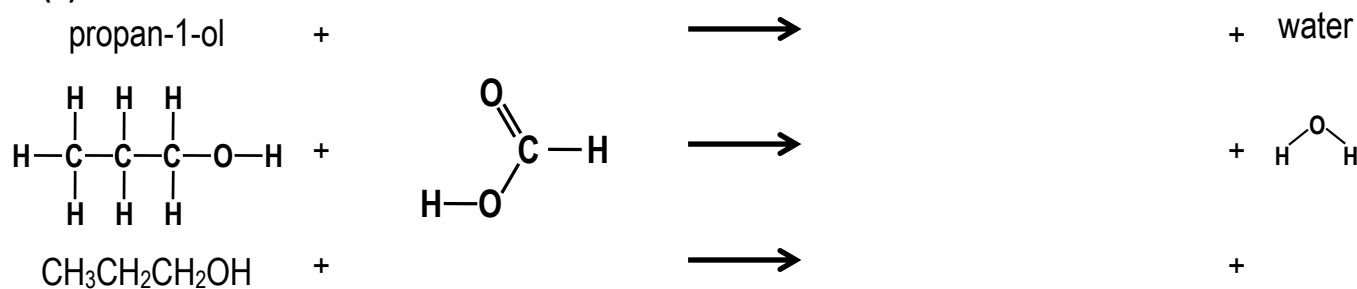
N5**ESTERIFICATION****N5**

1. Copy and complete the table below.

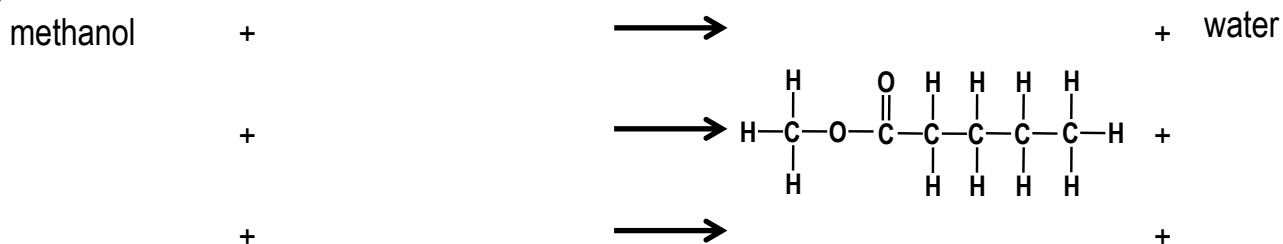
Alcohol	Carboxylic Acid	Name of Ester
methanol	butanoic acid	
pentanol		pentyl ethanoate
		butyl hexanoate
ethanol	octanoic acid	

2. Copy and complete the following (condensation) esterification reactions.

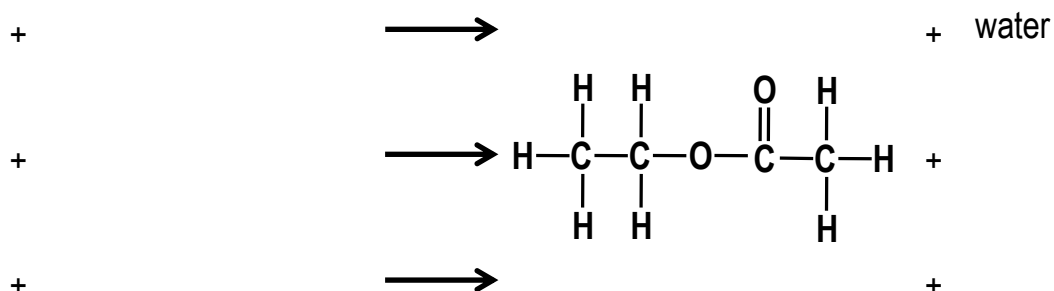
(a)



(b)

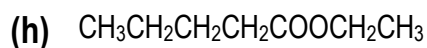
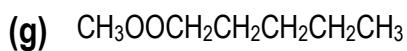
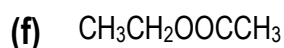
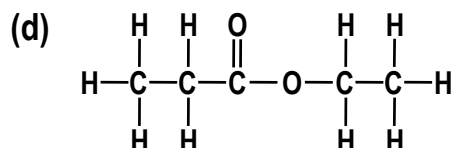
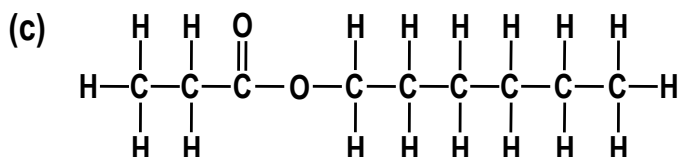
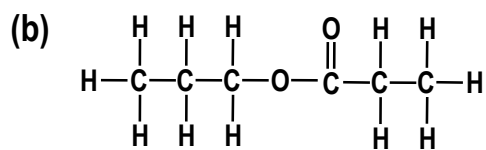
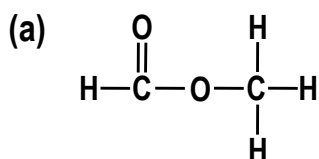


(c)



N5**ESTER FORMULAE****N5**

1. Name the following ester molecules.



2. Draw the full structural formula of the following esters.

(a) ethyl methanoate

(b) propyl ethanoate

(c) octyl ethanoate

(d) heptyl propanoate

(e) methyl hexanoate

(f) hexyl butanoate