

# NAMING HYDROCARBONS

Name \_\_\_\_\_

Name the compounds below according to the IUPAC naming system

<p>1.</p> <pre>       H   H   H                 H - C - C - C - H                       H   H   H           </pre>	<p>5.</p> <pre>       H   H   H                 H - C - C - C - H                       H   H   H - C - H   H           </pre>
<p>2.</p> <pre>       H   H   H   H                     H - C = C - C - C - H                             H   H           </pre>	<p>6.</p> <pre>       H   CH<sub>3</sub> H                 H - C - C - C - H                       H   H   H           </pre>
<p>3.</p> <pre>       H         H - C ≡ C - C - H                         H           </pre>	<p>7.</p> <pre>       H   H   H   H   H                         H - C - C = C - C - C - H                             H   H           </pre>
<p>4.</p> <pre>       H   H   H   CH<sub>3</sub> H                         H - C - C - C - C - C - H                               H   H   H   H   H           </pre>	<p>8.</p> <pre>       H               H - C - H                   H   H   H - C - H   H   H                             H - C - C - C - C - C - H                               H   H   H - C - H   H   H                       H - C - H                               H           </pre>

# STRUCTURE OF HYDROCARBONS

Name \_\_\_\_\_

Draw the structure of the compounds below.

1. ethane	5. ethyne
2. propene	6. 3,3-dimethyl pentane
3. 2-butene	7. 2,3-dimethyl pentane
4. methane	8. n-butyne

# FUNCTIONAL GROUPS

Name \_\_\_\_\_

Classify each of the organic compounds below as an alcohol, carboxylic acid, aldehyde, ketone, ether or ester, and draw its structural formula.

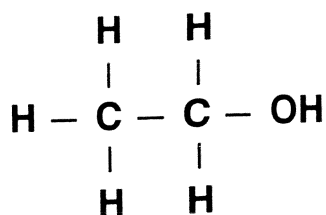
1. $\text{CH}_3\text{COOH}$	6. $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$
2. $\text{CH}_3\text{COCH}_3$	7. $\text{CH}_3\text{CH}_2\text{COOH}$
3. $\text{CH}_3\text{CH}_2\text{OH}$	8. $\text{CH}_3\text{CH}_2\text{COOCH}_3$
4. $\text{CH}_3\text{CH}_2\text{OCH}_3$	9. $\text{CH}_3\text{CH}_2\text{COCH}_3$
5. $\text{CH}_3\text{CH}_2\text{CHO}$	10. $\text{CH}_3\text{OCH}_3$

# NAMING OTHER ORGANIC COMPOUNDS

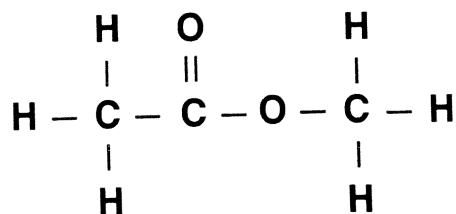
Name \_\_\_\_\_

Name the compounds below.

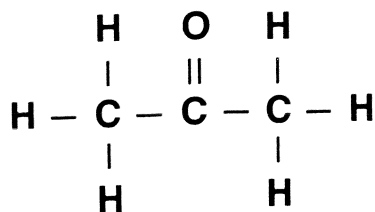
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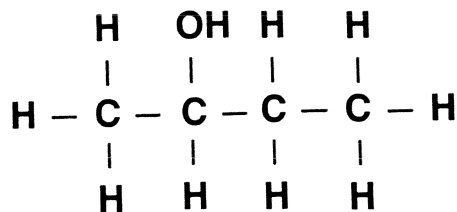
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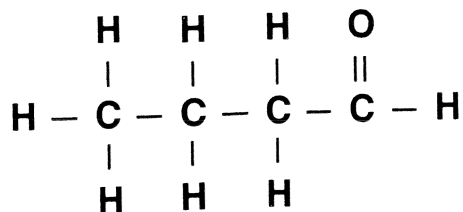
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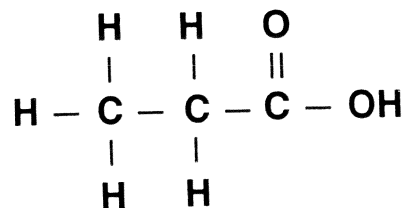
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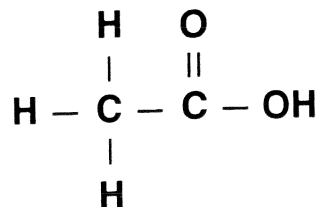
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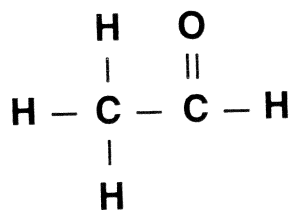
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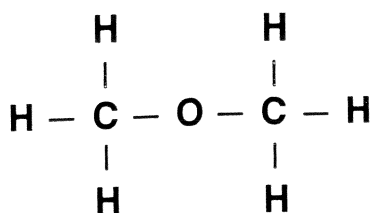
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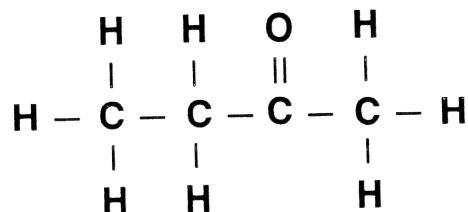
9.



5.



10.



# STRUCTURES OF OTHER ORGANIC COMPOUNDS

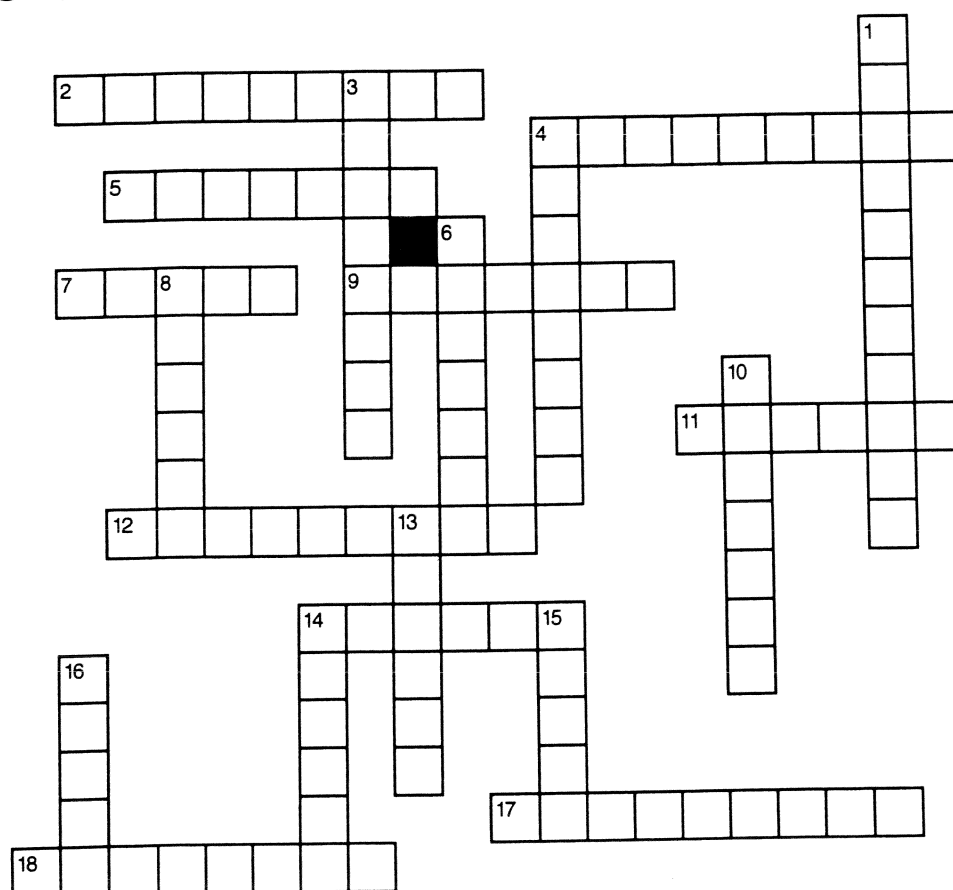
Name \_\_\_\_\_

Draw the structures of the compounds below.

1. butanoic acid	6. methylmethanoate (methyl formate)
2. methanal	7. 3-pentanol
3. methanol	8. methanoic acid (formic acid)
4. butanone	9. propanal
5. diethyl ether	10. 2-pentanone

# ORGANIC CHEMISTRY CROSSWORD

Name \_\_\_\_\_



## Across

2. Hydrocarbon containing only single bonds
4. Contains two double bonds
5. Alcohol in which the hydroxyl group is attached to an end carbon
7. An alkane minus one hydrogen. It attaches to another carbon chain.
9. Compounds with the same molecular formula, but different structural formulas
11. A dihydroxy alcohol
12. Alcohol in which the hydroxyl is attached to a carbon attached to two other carbons
14. Open chain hydrocarbon containing one double bond
17. Organic compounds containing the benzene ring structure
18. Describes a hydrocarbon with a side chain of carbon atoms

## Down

1. An alcohol with only one hydroxyl group in its structure
3. Alcohol in which the hydroxyl is attached to a carbon attached to three other carbons
4. General formula  $R-CHO$
6. High molecular mass compound consisting of repeating units called monomers
8. General formula  $R-CO-R'$
10. Contains one or more  $-OH$  groups
13. Saturated open chain hydrocarbon
14. Open chain hydrocarbon containing only one triple bond
15. Produced by the reaction of an alcohol and an acid
16. General formula  $R-O-R'$