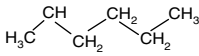
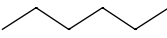
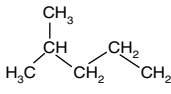
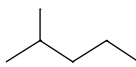
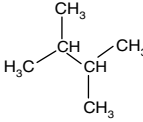
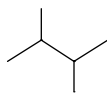
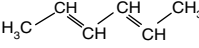
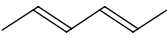
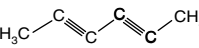
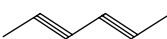
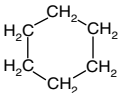

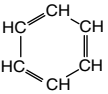



## Hydrocarbon

## Aliphatic

|             |        | Formula                   | Kekulé structure  | Skeletal structure  |
|-------------|--------|---------------------------|---|---|
| Saturated   | Alkane | $C_6H_{14}$<br>Unbranched |  |  |
|             | Alkane | $C_6H_{14}$<br>Branched   |  |  |
|             | Alkane | $C_6H_{14}$<br>Branched   |  |  |
|             | Alkene | $C_6H_{10}$               |  |  |
| Unsaturated | Alkyne | $C_6H_6$                  |  |  |

## Cyclic

|                  |             |  |  |
|------------------|-------------|--|--|
| Alicyclic        | $C_6H_{12}$ |   |   |
| Aromatic (arene) | $C_6H_6$    |  |  |

**Figure 8.1.** Hydrocarbons are classified by whether their carbon structure includes rings, multiple bonds, or branches. Classification of hydrocarbon structural families is shown here with the chemical formula. Structures are shown as Kekulé (also called line-bond) and skeletal structures.