Section 5.3.
Organic Compounds.

Textbook pages 244 to 251.

Before You Read.

What do you think of when you hear the term “organic”?

What are organic compounds?

Organic compounds are any compounds that contain carbon (with a few exceptions). All other compounds are referred to as **inorganic compounds**. In almost all organic compounds, carbon atoms are bonded to hydrogen atoms or other elements that are near carbon in the periodic table, especially nitrogen, oxygen, sulphur, phosphorus, and the halogens. Other elements, including metals and non-metals, may also be present.

The carbon in organic compounds forms four bonds, which enables it to form complex, branched-chain structures, ring structures, and even cage-like structures. Several different methods can be used to model these structures. These include the structural formula, the ball-and-stick model, and the space-filling model.

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To recognize a compound as organic, look for an indication of the presence of carbon in its name, chemical formula, or diagram. However, there are a few exceptions to this rule. Certain compounds that contain carbon are classified as inorganic carbon compounds. These include any compounds that contain carbonates, (for example, C.a.C.O.3.); carbides, (for example, S.i.C); and oxides (for example, C.O.2, C.O.).

What are some common organic compounds?

Two common organic compounds are hydrocarbons and alcohols.

1. Hydrocarbons. : A **hydrocarbon** is an organic compound that contains only the elements carbon and hydrogen. The simplest of all organic compounds is the hydrocarbon molecule called methane (C.H.4.) which consists of a carbon atom bonded to four hydrogen atoms. Other hydrocarbons are formed by linking two or more carbons together to make a chain.

2. Alcohols. : An **alcohol** is one kind of organic compound that contains C, H, and O in a specific structure.