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## **STAAR Science Tutorial 17** **TEK 7.6A: Organic Compounds**

**TEK 7.6A: Identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur.**

### **Organic Compounds**

- Any compound that uses a **chain of carbon atoms** are the **structural backbone** of the molecule is known as an **organic compound**.
- Organic compounds are usually made by living organisms to build the structures of their bodies or support the chemical processes of life. Today they can also be made in a lab.
- Examples of organic compounds in living organisms are **carbohydrates** , **proteins**, **fats** and **nucleic acids** .
- Examples of organic compounds include glucose ( $C_6H_{12}O_6$ ), butane ( $C_4H_{10}$ ), cellulose ( $C_5H_{10}O_5$ ), and urea ( $CO(NH_2)_2$ ).
- Other elements that are commonly found in the organic compounds of living organisms include hydrogen (H), oxygen (O), nitrogen (N), sulfur (S) and phosphorus (P).

### **Practice Problems**

1. An organic compound has one or more \_\_\_\_\_ atoms as part of the molecules structure.
2. Organic compounds are usually made by \_\_\_\_\_ to support life processes.
3. Other elements found in the organic compounds of living organisms include:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_ and \_\_\_\_\_.