

The Chemical Context of Life

Chapter 2

1. Identify the six elements that make up nearly all living matter.
2. Describe a trace element.
3. In humans, iron is a trace element required for the proper functioning of hemoglobin, the molecule that carries oxygen in red blood cells. What might be the effects of an iron deficiency?
4. Describe a covalent bond.
5. Describe the difference between polar and nonpolar covalent bonds.
6. Describe an ionic bond.
7. Describe hydrogen bonds and how they form. Explain their significance to biological systems.
8. Suggest a reason a pharmaceutical researcher, might want to learn about the three-dimensional shapes of naturally occurring signaling molecules?