

HOMEWORK 2. 3: CARBON-BASED MOLECULES**KEY CONCEPT**

Carbon-based molecules are the foundation of life.

VOCABULARY

monomer	lipid	amino acid
polymer	fatty acid	nucleic acid
carbohydrate	protein	

MAIN IDEA: Carbon atoms have unique bonding properties.

Choose whether the statement is true or false.

1. *true / false* Carbon atoms form the building blocks of most living things.
2. *true / false* Carbon's outer energy level is full.
3. *true / false* Carbon atoms can form covalent bonds with up to four other atoms.
4. *true / false* The three basic structures of carbon-based molecules are straight chain, bent chain, and ring.
5. Choose **one** of the three basic structures of carbon-based molecules to sketch in the space below. **Label** your sketch with the name of the basic structure.

MAIN IDEA: Four main types of carbon-based molecules are found in living things.

Complete the table with the functions and examples provided for each type of carbon-based molecule.

<u>Functions</u>	<u>Examples</u>		
Provide energy	meat	fat	oils
Building blocks of proteins	sugar	beans	DNA
Map for making proteins	RNA	starches	nuts
Store energy			

Molecule Type	Functions	Examples
Carbohydrate	6.	7.
Lipid	8.	9.
Protein	10.	11.
Nucleic acid	12.	13.

Vocabulary Check

14. The prefix *mono-* means “one,” and the prefix *poly-* means “many.”

Which contains more molecules, a monomer or a polymer?
