

Organic molecule building

Organic molecules are the molecules which exist in all living things. They are often building blocks. All things are formed from these organic molecules. There are four categories of organic molecules: Carbohydrates, lipids, proteins and nucleic acids.

1. What are organic molecules and what are they things?
2. Name four categories of organic molecules which form the basis of all living things.

Organic molecules have four common characteristics. First, they are all carbon based, meaning they all contain carbon. They are formed from just a few elements which join together to form small molecules which join together, or bond, to form large molecules. The third characteristic of all organic molecules is that each is formed from organic molecules about from a single type of building block. For example, the building block of carbohydrates is sugar, the building block of lipids is fatty acids, the building block of protein is amino acids and the building block of nucleic acids is the nucleotide. When these building blocks are joined together, they form a large molecule (polymer), just as bricks joined together form a wall. For example, sugars join together form a carbohydrate.

3. Are all the organic molecules are based on what element?
4. What things, the molecules are to form living things with what kind of molecules?
5. What are the building blocks of organic molecules the kinds?
6. What is the building block of each of the four classes of organic molecules?
7. Where is a polymer?

The last common characteristic of all organic molecules is that their form determines their function. That means that their shape determines how they will behave and how they will react with other molecules. For example, the order of amino acids in a protein will determine the shape and function of the protein, just as the order of words in a sentence shapes the meaning of the sentence.

8. What determines how organic molecules will look and behave?
9. What are the four common characteristics of all organic molecules?

Carbohydrates

Carbohydrates are the most common organic molecules because they make up most parts of cells. They are made from carbon, hydrogen and oxygen. Their building block is simple sugar called a monosaccharide. Simple monosaccharides consist of carbon rings. When two monosaccharides, or sugars, combine, they form a disaccharide (di = two). When more than two monosaccharides join together, a polysaccharide (poly = many) is formed.

1. What are the elements contained in carbohydrates?
2. What is the building block of carbohydrates?
3. What is a monosaccharide?
4. What does a monosaccharide look like?
5. What is a disaccharide?
6. What does a polysaccharide (like) form a disaccharide?

There are three classes of carbohydrate polysaccharides. The first is starch. Starch is a carbohydrate used for food storage in plants. Cellulose, paper and wood are not so much. Glycogen are very valuable because they provide a quick form of energy for the body. The second is glycogen. Glycogen is used for food storage in animals. The third is cellulose. Cellulose is used for structural support in plants (paper, wood).

7. What are the three classes of carbohydrates?

