DNA Worksheet

Objective: Know the building blocks and structure of DNA

**Structure of NucleicAcids**

1. The building blocks of nucleic acids are known as .

2. Label the three parts of a nucleotide.

3. Label the two types of nitrogenous bases.

**Function of DNA**

1. The acronym DNA stands for .

2. DNA makes up chromosomes, which are located in the of a cell.

3. Small sections of a DNA molecule that determines genetic traits are called .

**Structure of DNA**

1. A DNA molecule consists of strands.

2. DNA is a long chain made of repeating units called .

3. DNA is shaped like a helix.

4. The” sides” of the DNA ladder are made up of and .

5. The “rungs” of the DNA ladder are made up of .

6. In complementary base pairing, bonds with , and

bonds with .

7. Use the image at the right to complete the following:

Circle a nucleotide.

Label the sugars with an S.

Label the bases that are not already labeled.

DNA Replication

1. The replication (exact duplication) of DNA begins with the

of the double helix.

1. DNA replication is said to be because each strand acts as a template to construct the other half of the molecule.
2. Show the complimentary base pairing that would occur during replication of this DNA molecule to the left. Notice how two strands are made from one.