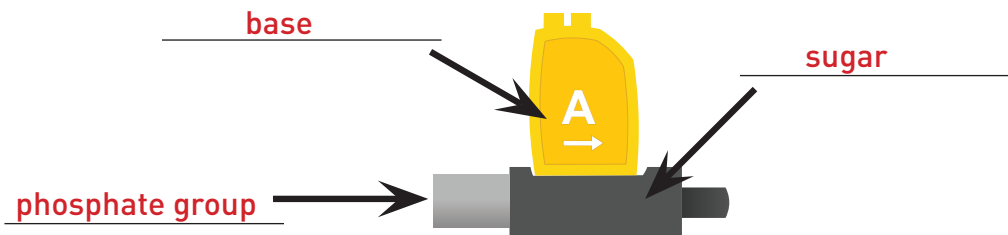


Answer the questions using DNA/RNA Booklet 1: Introduction to Structure and Function (pages 3-13).

1. What are the subunits of DNA called? nucleotides  
They are small molecules.

2. Where are these subunits found in the cell? in the nucleus

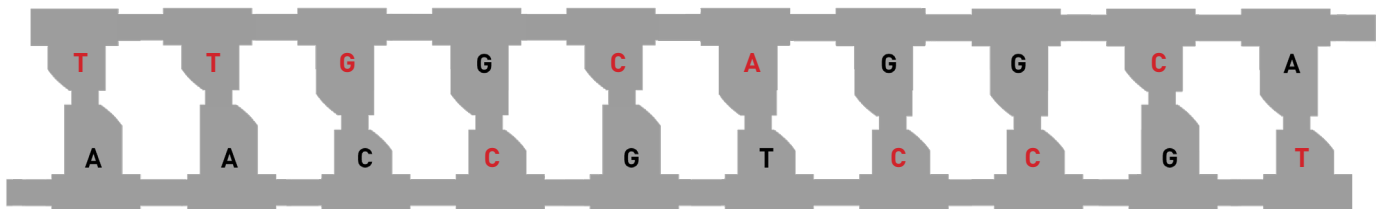
3. Here is a model of a nucleotide. Label the 3 parts of the molecule.



4. The letter A on the nucleotide above is an abbreviation for its chemical name. Write out the 4 chemical names for the DNA bases.

adenine      cytosine      guanine      thymine

5. Write in the correct letters to complete the DNA base pairs below.  
How many individual nucleotides are represented in this diagram? 20



6. If the DNA shown above is replicated, will the 2 DNA molecules be identical?  
Describe how DNA replication works.

Yes, they will be identical because replication produces an exact copy. During replication, the DNA double strand opens up down the middle. Each original strand base pairs with individual nucleotides to create a new strand. The 2 DNA molecules created will each have 1 original strand and 1 new strand. This is called semiconservative replication.