

MIT DNA/RNA Set Class Notes

Name _____

To be completed in class using DNA/RNA Booklet 1 (pages 3-13).

Date _____

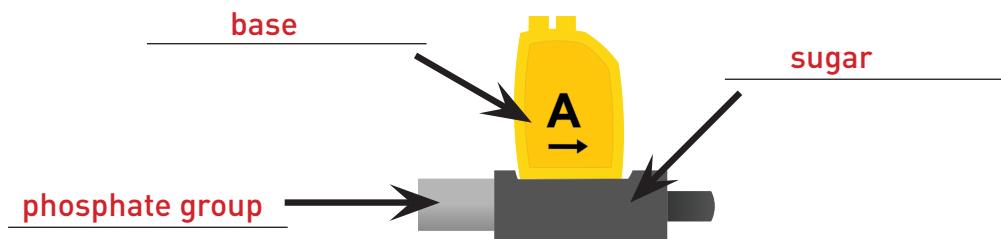
Class _____

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. **(Order of nucleotide names does not matter.)**

adenine

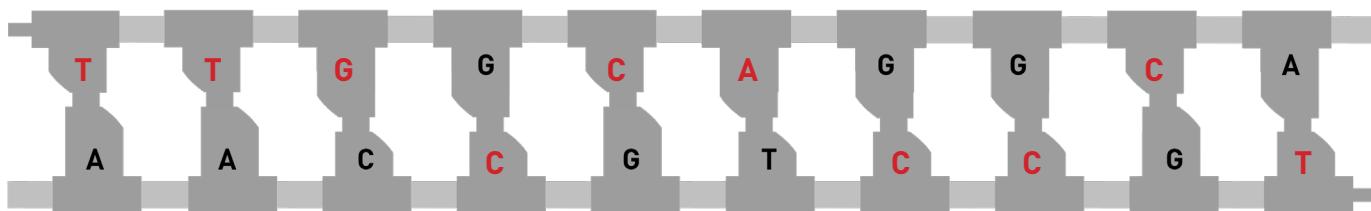
cytosine

guanine

thymine

5. Write in the correct letters to complete the DNA base pairs below.

How many total nucleotides are represented in this diagram? **20**



6. If the DNA shown above is replicated, will the 2 DNA molecules be identical? Circle **YES** or NO

7. Describe how DNA replication works.

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.