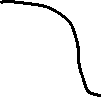
* + DNA is composed of individual building blocks called \_\_\_\_\_nucleotides\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
    - An illustration shows the details of the Deoxyribonucleic acid (D N A) structure. "The illustration shows a simple rendering of the D N A double helix. Typically described as a twisted ladder, it appears as a vertical pair of ribbons (strands) spiraling around each other, connected by horizontal bars. 
      Overlaid on the left strand are alternating circle and pentagon shapes connected by bent lines, going along the ribbon. The pentagon shapes are connected to a fused ring comprised by a pentagon and a hexagon. The bottom area illustrates the base pairing. The “rungs” of the ladder are formed by attractive forces between base pairs, represented by different shapes. The pentagon and a hexagon fused rings on one strand are connected by two or three parallel dotted lines to a hexagon ring on another strand."List the components of this building block. 1. A phosphate group

2. A sugar molecule

3. A nitrogen base

* + On the figure to the right, complete the following:
    - Highlight or circle a single nucleotide.
    - In a different colored writing utensil, circle and label the parts of the “uprights” or “backbones” of the double helix.



* + - Circle and label the part of the “rungs” of the double helix.

T

A

G

C

T

A

* + Make a list of the four different nitrogen-containing bases:

C

G

Adenine Cytosine

A

T

Thymine Guanine

* + - Which bases will always be a base pair, or bond together?

Adenine & Thymine Cytosine & Guanine

* + - What holds the base pairs together?
      * Hydrogen bonds hold them together