

Name _____

Period _____ Date _____

DNA Notes

Deoxyribonucleic Acid

- DNA stores _____ information
 - _____ and _____ all of our cells' activities
 - Provides the _____ instructions to make _____, _____!
-

Where is DNA located?

- DNA is found in the _____ of every _____ cell
-

What does DNA do?

DNA _____:

- _____ reactions in the cell
- The _____ of _____
- The _____ of _____ produced

DNA _____ before _____

DNA directs _____ synthesis:

- Tells the _____ in the cell when to make a _____
 - REMEMBER: you are _____ because of your _____
-

Who discovered DNA?

As with other scientific _____, the discovery of _____ was a

_____ of the work of multiple _____

1. _____ 2. _____ 3. _____

Friedrich Miesher (1869):

- Swiss biologist
- Studies _____...
- ...from used _____ collected from a nearby _____
- After stripping away the _____ and _____ from the cells, he was left with a "_____" substances
- He named this substance _____
- He did not know the _____ or _____ of this new substance

Rosalind Franklin (1952):

- _____ in London
- Used _____
- Discovered that DNA has a _____ shape
- Determined the _____ backbone is located on the _____ of the structure

James Watson & Francis Crick (1953):

- Published _____ papers stating that DNA was in the shape of a _____
- Merely _____ that _____ was _____ in the research

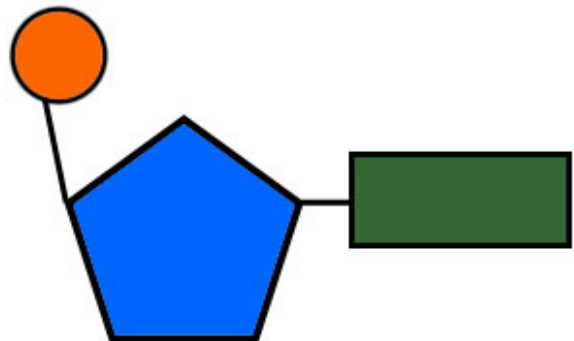
The Structure of DNA

DNA is made up of _____

_____ parts of a _____

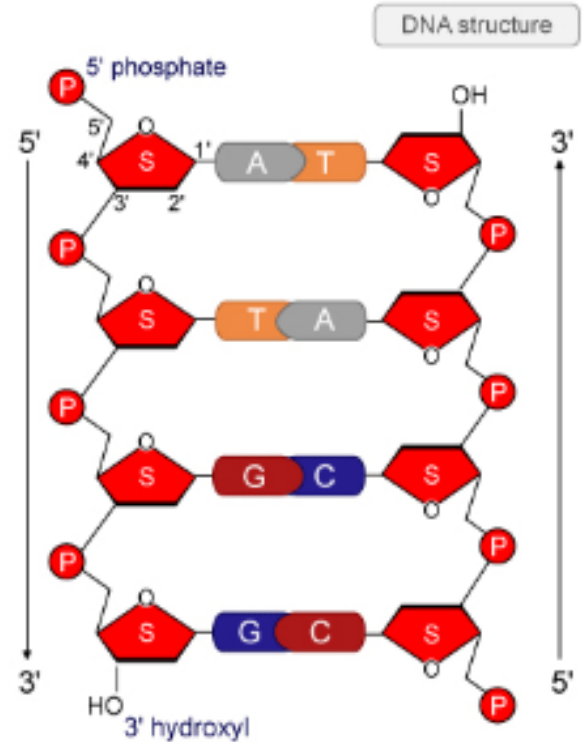
1. _____
2. _____
3. _____

Label the parts of the diagram:



Sugar-Phosphate Backbone

- Located on the _____ of the structure
- Sides of the _____ run in _____ directions
- _____ and _____ from the _____ to _____ direction
- _____ on the _____ acts like an _____
 - _____ points to the _____ end



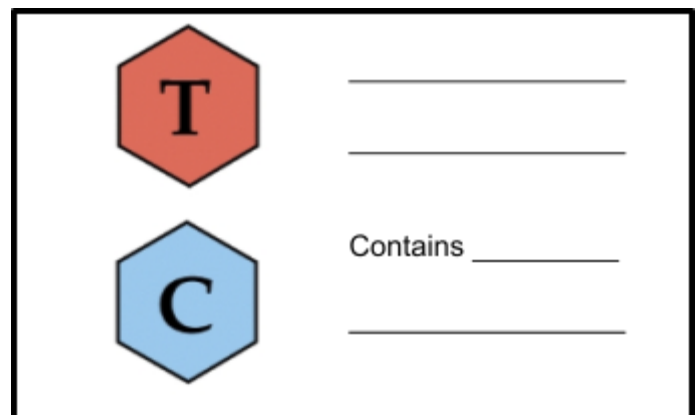
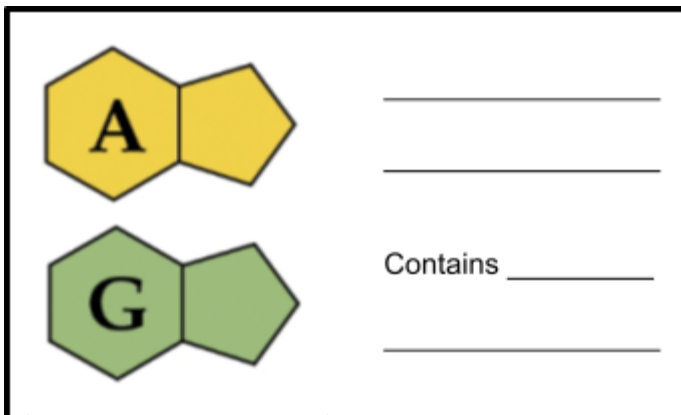
Nitrogenous Bases

Four bases:

1. _____
2. _____
3. _____
4. _____

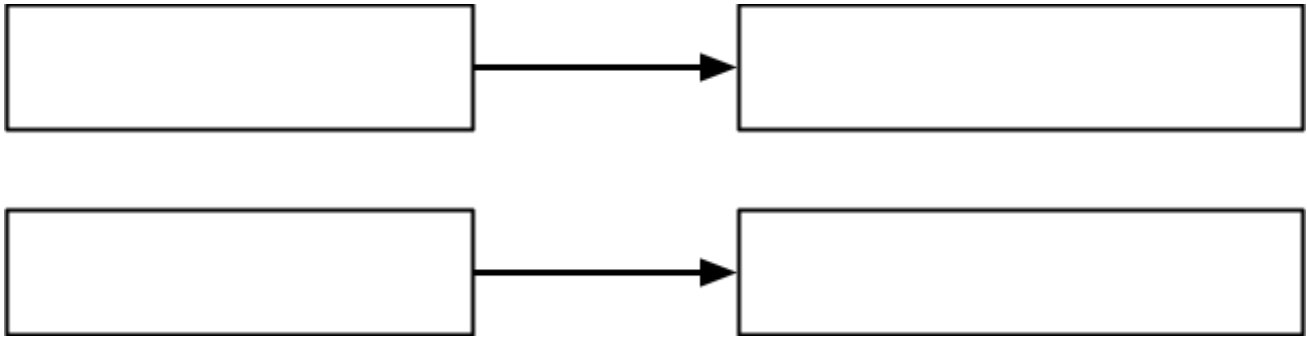
Those 4 bases fall into one of two categories:

1. _____ and
2. _____



Nitrogenous bases pair in specific ways:

The nitrogenous bases form _____



_____ bonds are very _____

Write the complementary strand of the DNA strand listed below:

A - T - T - G - C - T - A - G - G - C
