**DNA Structure and Function** DATE:

NOTES:

**A. DNA Structure**

* DNA = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* DNA’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is made of a \_\_\_\_\_\_\_\_\_\_\_\_ (deoxyribose) and a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The rungs of DNA is made of 4 \_\_\_\_\_\_\_\_\_\_\_\_ (Adenine, Guanine, Thymine, Cytosine)
* DNA is held together by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bonds



**B. DNA Structure - Chromosomes**

* The DNA is coiled in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Chromosomes carry the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of your ancestors



BIOLOGY CORNELL NOTES:

STUDY QUESTIONS

1. What holds DNA together?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is the X shaped structure that contains DNA?

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3. What type of strands are created from DNA replication? Identical or different?

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**C. DNA Replication**

1. DNA must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from cell to cell
2. The copying of DNA is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Once the entire process is complete, two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ strands of DNA are formed

D. Steps of DNA Replication

* STEP 1
	+ DNA is \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bonds are broken apart by the enzyme DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* STEP 2
	+ Two strands are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the enzyme DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* STEP 3
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ base pairs are brought to the original strand from the opposite end (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* STEP 4
	+ DNA molecules are one part \_\_\_\_\_\_\_\_\_\_\_\_ strand and one part \_\_\_\_\_\_\_\_\_ strand. \_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ replication
* STEP 5
	+ Two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ strands of DNA are produced

BIOLOGY CORNELL NOTES:

SUMMARY

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_