

Name: _____

Date: _____

Period: _____

Intro to DNA

Week # _____

Directions: Read p. 342 - 348. Then answer the questions below.

Question	Description
What are the three main functions of DNA? (p. 342-3)	
What does DNA stand for? (p. 344)	
What is DNA? (p. 344)	
What are nucleotides? (p. 344)	
What are nucleotides made of? (p. 344)	
What are the four kinds of nitrogenous bases? (p. 344)	
What are nucleotides in a strand of DNA joined by? (p. 344)	
What is Chargaff's rule? (p. 345)	
What does the double-helix model explain? (p. 347)	
What is surprising about the double-helix model? (p. 347)	
What force holds the two strands of DNA's double helix together? (p. 348)	



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Directions: Figure 1 shows the structure of DNA. Use Figure 1 and your Cornell notes to answer the questions below.

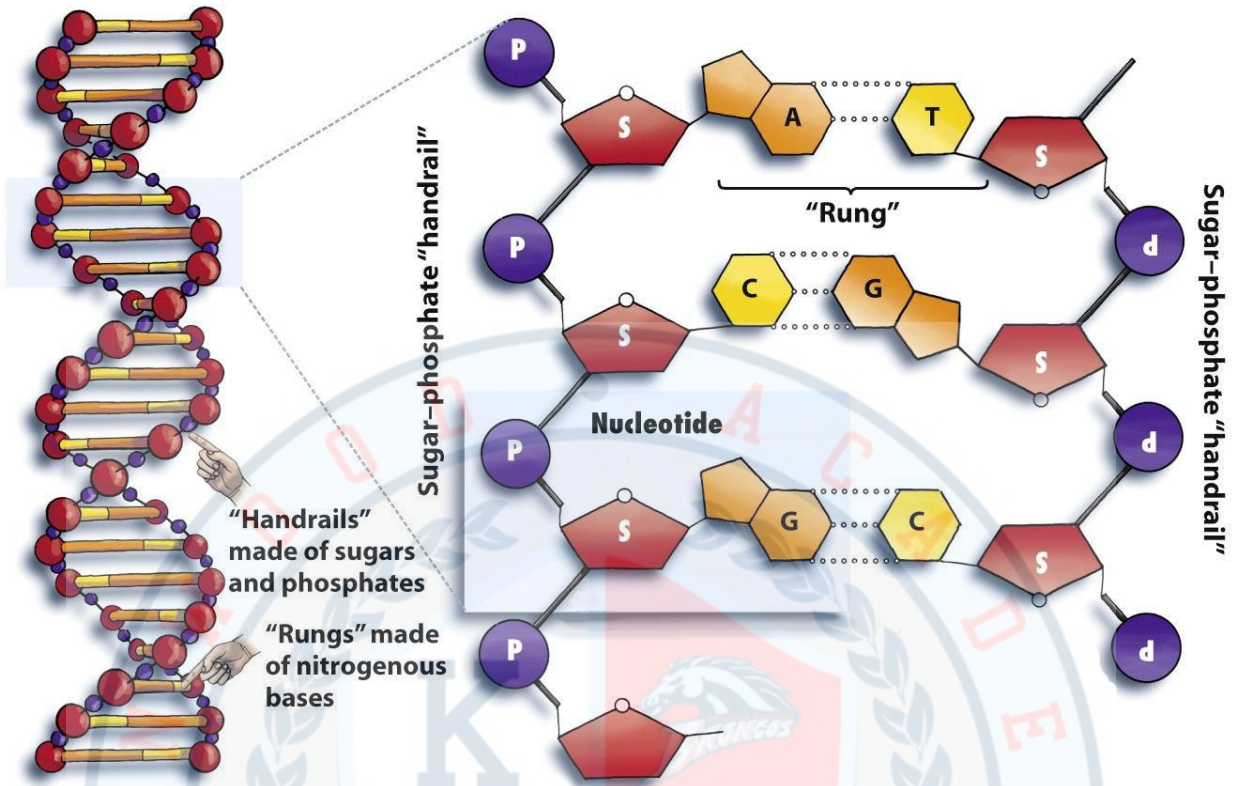


Figure 1

- The double helix shape of DNA is like a _____ that has been twisted.
- The two strands of DNA (or the “handrails”) run in _____ directions.
- A nucleotide is made of a _____, _____, and _____.
- A _____ bond is the type of bond that connects nucleotides within a strand, or “handrail”.
- The four types of bases are: _____, _____, _____, _____.
- A _____ bond is the type of bond that connects bases that hold the two strands together.
- Base pairing means that _____ always pairs with _____, and _____ always pairs with _____.
- Given the DNA sequence of one strand: A T G G C A A A C, what is the complementary sequence?

- If an organism’s DNA is made of 22% adenine, then you would expect _____% thymine.
- Complete the table below based on the base-pairing of DNA. Remember that percentages for each organism should add up to 100%.

Percentages of Bases in Five Organisms				
Source of DNA	A	T	G	C
Streptococcus	29			21
E. coli		32		18
Yeast		28	22	
Herring	31			
Human	26			