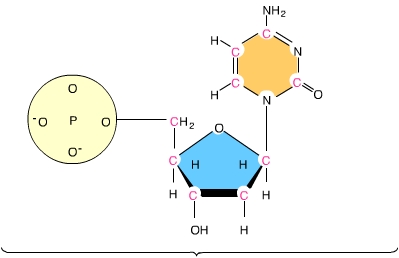
**DNA PRACTICE QUIZ**

1. **Which description most scientifically describes the SHAPE of DNA?**
2. **An alpha helix**
3. **A double helix**
4. **A nuclear histone**
5. **A helical monomer**
6. **Which of the following is NOT a nitrogenous base found in DNA?**
7. **Uracil**
8. **Adenine**
9. **Guanine**
10. **Cytosine**
11. **Thymine**
12. **How many chromosomes of DNA are typically found in a SINGLE healthy body cell when it is getting ready for division?**
13. **23**
14. **Billions**
15. **46**
16. **102**
17. **Chromosomes are never found in cells**
18. **What most accurately describes the way that DNA nitrogenous bases pair up (Complementary Base Pairing)?**
19. **Adenine to Guanine with 3 H-Bonds, while Cytosine bonds to Thymine with 2 H-bonds.**
20. **Adenine to Guanine with 2 H-Bonds, while Cytosine bonds to Thymine with 3 H-bonds.**
21. **Adenine to Thymine with 3 H-Bonds, while Cytosine bonds to Guanine with 2 H-bonds.**
22. **Adenine to Thymine with 2 H-Bonds, while Cytosine bonds to Guanine with 3 H-bonds.**
23. **A section of a chromosome that codes for a particular protein is known as….**
24. **A codon**
25. **A chromatin**
26. **A gene**
27. **A nucleotide**
28. **The molecule below is called…**

[](http://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=http://www.hbwbiology.net/quizzes/ch16-molecular-inheritence.htm&ei=UAXlVOvvHoaoogSfgoH4Bw&bvm=bv.86475890,d.cGU&psig=AFQjCNHdcYuzN3XBgaQCg-o5rQThY4i43Q&ust=1424381646401545)

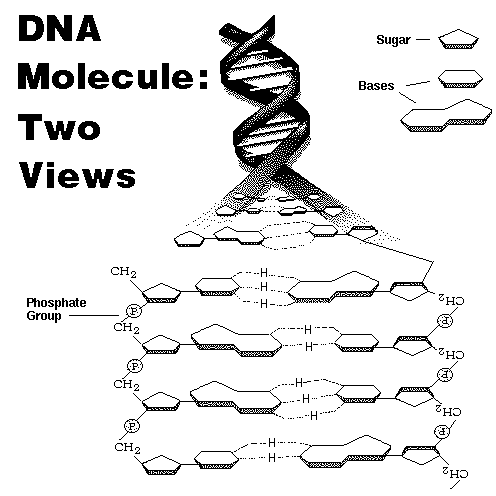
1. **A Gene**
2. **A Histone**
3. **A Nucleic Acid**
4. **A Nitrogenous Base**
5. **A Nucleotide**
6. **Which of the following is a PURINE?  
   A) Cytosine C) Thymine**

**B) Adenine D) Uracil**

1. **In the diagram below, indicate what nitrogenous base each letter represents. (scroll down to bottom of diagram**

**X = \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Y = \_\_\_\_\_\_\_\_\_\_\_\_\_**

[](http://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=http://www.accessexcellence.org/AE/AEC/CC/DNA_structure.php&ei=VATlVLCxAZHwoATI3ICoCQ&bvm=bv.86475890,d.cGU&psig=AFQjCNEY__Vfe5PB1HeeOWJgUFycwuhxMg&ust=1424381350421169)

X

**Y**

1. **If one strand of a DNA molecule had the following sequence : A C G G G C A TG**

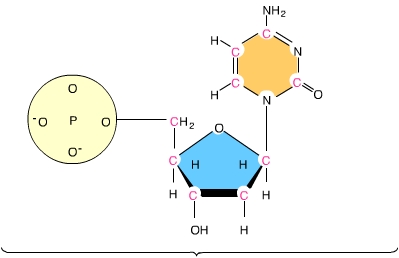
* **What would it's complementary strand sequence have for bases and how many total H-bonds would form between these two strands?**

1. **Every three nitrogenous bases on a gene is a triplet of bases that codes for a particular amino acid. What are these triplets called?  
   A) Exons  
   B) Codons  
   C) Variables  
   D) Nucleotides**

**Keep scrolling for answer KEY**

**ANSWER KEY**

1. **Which description most scientifically describes the SHAPE of DNA?**
2. **An alpha helix**
3. **A double helix**
4. **A nuclear histone**
5. **A helical monomer**
6. **Which of the following is NOT a nitrogenous base found in DNA? (Any Geek Can Teach)**
7. **Uracil**
8. **Adenine**
9. **Guanine**
10. **Cytosine**
11. **Thymine**
12. **How many chromosomes of DNA are typically found in a SINGLE healthy body cell when it is ready for division?**
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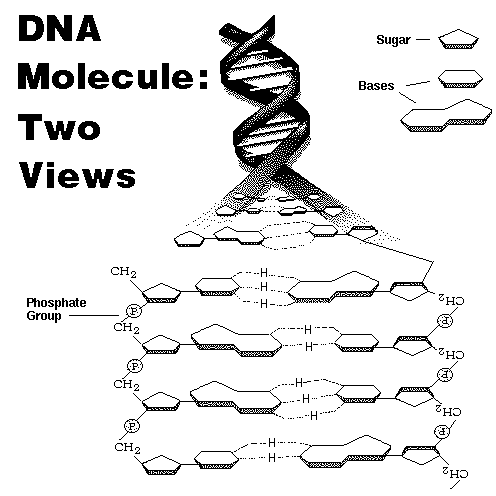
1. **A Gene**
2. **A Histone**
3. **A Nucleic Acid**
4. **A Nitrogenous Base**
5. **A Nucleotide ……(Phosphate, Sugar Base)**
6. **Which of the following is a PURINE? ("Any Geek…. My first two words have two rings… Adenine and Guanine are my Purines. Cytosine, Thymine are Pyrimidines – Big name with a Y in it is the group/category name for the little single-ringed bases.)  
   A) Cytosine C) Thymine**

**B) Adenine D) Uracil (RNA pyrimidine)**

1. **In the diagram below, indicate what nitrogenous base each letter represents. (scroll down to bottom of diagram**

**X = \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Y = \_\_\_\_\_\_\_\_\_\_\_\_\_**

[](http://www.google.ca/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRw&url=http://www.accessexcellence.org/AE/AEC/CC/DNA_structure.php&ei=VATlVLCxAZHwoATI3ICoCQ&bvm=bv.86475890,d.cGU&psig=AFQjCNEY__Vfe5PB1HeeOWJgUFycwuhxMg&ust=1424381350421169)

**Y**

X

**X = "C to G with Three, and it is a double-ringed purine, which can only be A or G. So it must be GUANINE with 3 H-Bonds**

**Y = "TATOO" – T to A with Two H-Bonds. It is also a double-ringed purine, either A or G, so it must be ADENINE, as it has two H- Bonds**

1. **If one strand of a DNA molecule had the following sequence : A C G G G C A T G**

* **What would it's complementary strand sequence have for bases and how many total H-bonds would form between these two strands?**

**Strand A Strand B**

**A = T**

**C = G**

**G = C**

**G = C  
G = C**

**C = G**

**A = T**

**T = A**

**G = C**

**- And the total number of H-Bonds between all of the bases is 24**

1. **Every three nitrogenous bases on a gene is a triplet of bases that codes for a particular amino acid. What are these triplets called?  
   A) Exons  
   B) Codons  
   C) Variables  
   D) Nucleotides**