Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_Period: \_\_\_\_\_\_\_

**Genetics Webquest**

Go to: <https://sites.google.com/site/gw7science/Home/genetics-webquest>

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| [**What is DNA?**](http://learn.genetics.utah.edu/content/begin/tour/)  (look at the navigation bar and click on “What is DNA?”)  1)  What is DNA? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2) What does DNA stand for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3) Why is DNA called a blueprint? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  4)  The "twisted ladder" shape of the DNA molecule is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  5)  Name the four bases found in a DNA molecule. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6)  A DNA strand is made of  \_\_\_\_\_\_\_\_\_ which make up \_\_\_\_\_\_\_\_\_\_ which make up sentences.   7)  These "sentences" are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   [**What is a Gene?**](http://learn.genetics.utah.edu/content/begin/tour/)   (look at the navigation bar and you'll see “What is a Gene?” )   8)  What is a gene? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9)  Blood cells use a protein called \_\_\_\_\_\_\_\_\_\_\_\_\_ to capture and carry oxygen.  10) When a gene is changed, it is said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  11)  A mutation in the hemoglobin gene causes what disorder? \_\_\_\_\_\_\_\_\_ \_\_\_\_\_   [**What is a Chromosome?**](http://learn.genetics.utah.edu/content/begin/tour/)  (look at the navigation bar and you'll see “What is a Chromosome?” )  12)  If you stretched the DNA from a cell out, how long would it be? \_\_\_\_\_\_\_\_\_ 13)  How many chromosomes are in a human cell?\_\_\_\_\_\_  In a mosquito?  \_\_\_\_\_\_   In a carp? \_\_\_\_\_\_   [**What is a Protein?**](http://learn.genetics.utah.edu/content/begin/tour/) (look at the navigation bar and you'll see “What is a Protein?” )   14)  How is a protein like a car engine? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  15)  Receptor proteins are responsible for picking up \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  16)  Each gene in DNA encodes information on how to make a \_\_\_\_\_\_\_\_\_\_\_\_\_\_.  17)  Once in the cytoplasm, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ reads the message.    **[What is Heredity?](http://learn.genetics.utah.edu/content/begin/tour/%22%20%5Ct%20%22_blank)**[(look at the navigation bar and you'll see “What is a Heredity?” )](http://learn.genetics.utah.edu/content/begin/tour/%22%20%5Ct%20%22_blank) 18)  The passing of traits from parents to a child is the basis of \_\_\_\_\_\_\_\_\_\_.  19)  Every child receives  \_\_\_\_\_\_\_\_\_of its chromosomes from his mother, and \_\_\_\_\_\_\_\_\_from his father.   20)  When a sperm and egg join, they create a single cell called a \_\_\_\_\_\_\_\_\_\_\_. 21)  Each child inherits a \_\_\_\_\_\_\_\_\_\_\_ set of chromosomes.    [**What is a Trait?**](http://learn.genetics.utah.edu/content/begin/tour/)  (look at the navigation bar and you'll see “What is a Trait?” )  22)  Give an example of a physical trait:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 23)  A dog fetching a bone is an example of what kind of trait.  \_\_\_\_\_\_\_\_\_\_\_\_\_ 24)  Scientists describe the set of information for each form of a trait as an \_\_\_\_\_\_\_\_\_\_\_\_. [**Build a DNA Molecule**](http://learn.genetics.utah.edu/content/begin/dna/builddna/)   25)  What is the base pair rule? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   26)  Draw a small 10 base pair DNA molecule.   **Game**[Mouse Party](http://learn.genetics.utah.edu/content/addiction/drugs/mouse.html) -  follow the directions and drag the mice to the chair to observe how the brain is affected by the different drugs.    |

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