

Name: _____

Date: _____

Cells and Genetic Information

1. **Fill in the blanks:**

G pairs with C

T pairs with A

2. The following is a portion of a DNA strand: CCG ATT TGC ACG. The complimentary (matching) DNA strand would be:

a) CCG ATT TGC ACG

b) GGC TAA ACG TGC

c) GGC UAA UCG UGC

d) CCG TAU UCG UGC

3. DNA is made up of _____ types of nucleotides (nitrogen bases)

a) 1

b) 2

c) 3

d) 4

4. What is the basic structural unit of life? **cell**

5. What information can we get by looking at the chromosomes found in the nucleus of a cell?
(Give at least one)

Information about our genetic code, DNA, genes, heredity (eye color, hair color)

6. How many chromosomes are there in a human egg or sperm cell (haploid cells)?

23 chromosomes

7. How many chromosomes are there in a human diploid cell, like skin and organ tissue?

46 chromosomes/23 pairs

8. What is the name of the segments in DNA that code for specific characteristics, like eye color?

genes

9. What is special about the 23rd chromosomes in humans?

Determines sex (xx female/xy male)

10. What is the picture of the arrangement of chromosomes by size and number called?

Karyotype

11. Label the following image

