MEMORIZE FOR TEST ON

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**Genetics Vocabulary**

1. Traits – characteristics
2. Sex Cell – egg or sperm
3. Heredity – passing of traits from one generation to another
4. Chromosomes – structure found in the nucleus that contains genetic information
5. DNA – deoxyribonucleic acid
   1. in a double helix (spiral ladder shape);
   2. made of nitrogen base pairs and phosphorus and sugar
6. Nitrogen base pairs – make up the rungs of the DNA
   1. Adenine + Thymine
   2. Cytosine + Guanine
7. RNA – ribonucleic acid
   1. Single strand of nitrogen base pairs with phosphorous and sugar
   2. Used by the cell to process DNA transcription and translation
8. Genes – segment(piece) of DNA
9. Allele – letter in a gene pair; represents a trait
10. Genotype – set of genes in an organism; cannot be seen
11. Phenotype – physical expression of the genes; can be seen most of the time
12. Dominant trait – trait that is more powerful and expressed; represented by a capital letter
13. Recessive trait – trait that is weaker and only expressed with two recessive alleles
14. Homozygous – two of the same letter (can be dominant or recessive)
15. Heterozygous – two different letters; one capital and one lower case
16. Genetic engineering – manipulation of an organisms genes
17. Selective breeding – chose the organism that has the traits you wish to pass on and breed it with another organism that also has the traits you wish to pass on.
18. Punnett square – table used to predict the possible outcomes of a genetic cross
19. Monohybrid cross – cross that shows a single trait
20. Incomplete Dominance – dominant allele does not entirely mask(hide) the recessive gene
21. Co-dominance – more than one dominant allele and both are expressed(shown)
22. Polygenic Inheritance – more than one gene controls the expression of a trait (human skin color)
23. Mutation – change in the genes of an organism; can be beneficial, harmful or neutral
    1. Deletion – DNA is removed or deleted
    2. Insertion – DNA is inserted into the wrong section of DNA
    3. Frameshift – entire frame of DNA is moved to the wrong spot
    4. Translocation – large chunk of DNA switches with non-homologous chromosomes