Terms for Condensed Content Statement 3: <u>The characteristics of an organism are a result of inherited traits received from parent(s).</u>

1. Allele: each member of a gene pair that determines a specific trait.
2. Chromosome: tiny threadlike structures found in the nucleus of a cell that carry genetic information.
3. Cross-pollination: a type of pollination when pollen and pistil must be from different plants.
4. Dominant: the trait that is expressed when two different genes for the same trait are present.
5. Fertilization: the joining of an egg cell and a sperm cell during sexual reproduction to begin the development of a new individual.
6. Gene: a piece of genetic information that influences a trait.
7. Genetic information: information that determines traits and is stored in chromosomes.
8. Genetics: study of heredity, or the passing on of traits from an organism to its offspring.
9. Genotype: gene makeup of an organism.
10. Germination: the beginning of growth, as of a seed, spore, or bud when conditions are favorable.
11. Hybrid: organism that has two different genes for a trait, or that combines traits of two different but related species.
12. Law of Independent Assortment: each gene pair for a trait is inherited independently of the gene pairs for all other traits.
13. Law of Segregation: one gene from each pair goes to each sex cell.
14. Meiosis: a type of cell division that produces the sex cells – sperm and egg.
15. Mendelian genetics: cornerstone ideas about the transmission of genetic characters from parent organisms to their offspring based on Gregor Mendel's statistical analysis and scientific breeding of pea plants.
16. Pedigree: a diagram showing the lineage of an individual and all the direct ancestors, usually to analyze the inheritance of a trait.
17. Phenotype: physical appearance.
18. Pollination: the transfer of pollen from the anthers of a flower to the stigma of the same or of another flower. Pollination is a prerequisite for fertilization.
19. Recessive: the trait that is masked when two different genes for the same trait are present.
20. Self-pollination: a type of pollination when pollen and pistil are from the same plant, often (but not always) from the same flower.
21. Traits: inherited characteristics, either physical or behavioral.