Vocabulary: Chicken Genetics

Vocabulary

- Allele – one of two or more forms that a gene could take.
- Codominance – a pattern of inheritance in which the phenotypes of both alleles inherited for a trait are clearly expressed.
  - In humans, the A and B alleles for blood type are codominant. If a person inherits both alleles, they will have type AB blood.
- Dominant – describes an allele that is always expressed when it is present.
  - Dominant alleles are usually represented by capital letters, such as *F*.
- Genotype – the genetic makeup of an organism.
  - The genotype an organism is represented by symbols. For example, a chicken with with white feathers might have the genotype F^WF^W.
- Heterozygous – having two alleles that are different.
- Homozygous – having two alleles that are the same.
- Phenotype – the physical appearance of an organism.
  - With dominant/recessive inheritance patterns, organisms with different genotypes may have different phenotypes. However, with codominant inheritance patterns, organisms with different genotypes will always have different phenotypes.
- Probability – the likelihood that a specific event will occur.
  - Probability is calculated by dividing the number of one kind of possible outcome by the total number of all possible outcomes.
  - Probability can be expressed as words, fractions, decimals, or percentages. For example, an event that will likely happen one out of every four times has a probability of ¼, 0.25, and 25%.
- Punnett square – a diagram that shows the possible offspring of two parents.
  - Punnett squares can be used to determine the probability of each offspring's genotype.
- Recessive – describes an allele that is not expressed when the dominant allele is present.
  - Recessive alleles are usually represented by lowercase letters, such as *f*.
- Trial – a single time an experiment is conducted.