HEREDITY AND GENETIC TRAITS
23 Visual Vocabulary Cards

Terms Included:
allele, birthmark, blended trait, carrier, chromosome, co-dominance, dominant trait, environmental trait, generation, gene, genotype, heredity, incomplete dominance, inherited trait, instinct, learned behavior, offspring, pedigree chart, phenotype, punnett square, recessive trait, reproduction,
**Allele**

different forms of a gene that contain specific inheritable characteristics

<table>
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<th>EYE COLOR</th>
<th>FATHER (Brown eyes)</th>
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<tr>
<td></td>
<td>B   b</td>
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<tr>
<td>MOTHER (Brown eyes)</td>
<td>BB (Brown)</td>
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<td>bB (Brown)</td>
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Homozygous pairs of alleles can be either dominant (AA, BB) or recessive (aa, bb).

Heterozygous pairs of alleles are made up of one dominant and one recessive allele (Aa, Bb).
BIRTHMARK

a persistent visible mark on the skin that is evident at birth

The girl was born with a birthmark on her cheek.
BLENDED TRAIT

a characteristic that appears when more than one trait is expressed at the same time

Dad with curly hair.  +  Mom with straight hair.  =  Child with wavy hair.
an organism that has inherited a genetic trait or mutation, but who does not display that trait.

The father must have been a carrier of the recessive allele for blue eyes in order for the child to have blue eyes.
a threadlike linear strand of DNA that carries genetic information
CO-DOMINANCE

a form of inheritance in which both alleles are equally shown

The horse with a white and black coat is an example of co-dominance in horse-coat color. The allele for black coat color and the allele for white coat color are both equally shown.
DOMINANT TRAIT

a characteristic that appears when at least one dominant allele is present

Having freckles is a dominant trait.
ENVIRONMENTAL TRAIT

A hairstyle is an environmental trait.

A characteristic that is acquired by experience rather than by heredity.
one step in the line of descent of a family
Gene

a segment of DNA on a chromosome that contains instructions for an inherited trait (composed of 2 alleles)
**Genotype**

the genetic code an organism carries in their cells that provides information for a particular trait.

RR is a round-seeded pea plant’s genotype.
HEREDITY

the passing of genetic traits from parent to offspring

Children look similar to their parents because of the traits they inherit.
**INCOMPLETE DOMINANCE**

A form of inheritance in which the different alleles are both expressed, resulting in a blended trait.

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INHERITED TRAIT

a characteristic that is passed from parent to offspring through reproduction

A person's eye color is an inherited trait.
A bird knowing how to build a nest is an instinct.
LEARNED BEHAVIOR

a behavior that has been learned from experience or observation

The ability to tie shoes is a learned behavior.
OFFSPRING

a person’s child or animal’s young
a diagram that shows the presence or absence of a trait in each family member over several generations
PHENOTYPE

the visible expression of a trait - depends upon the genotype but is also influenced by environmental factors.

The color of a person’s hair is an example of a phenotype.
PUNNETT SQUARE

a chart showing the gene combinations that might result from a genetic cross
a characteristic that only appears when two recessive alleles are present

Not being able to roll your tongue is a recessive trait.
REPRODUCTION

the biological process in which new "offspring" organisms are produced from their "parents"

The parent birds produce baby bird offspring through reproduction.
SCAR

a mark on the skin that is left after a cut or other wound has healed