

3.3 Patterns of Inheritance

Traits: _____

Purebred: _____

Hybrid: _____

Dominant Traits

If we cross a *purebred white female (bb)* with a *purebred black male (BB)*, we notice the result is that all offspring have _____.

	FEMALE		
	b	b	
M A L E	B	Bb	Bb
	B	Bb	Bb

Recessive Traits

Has the white coat allele in the hybrid offspring disappeared?

The result is that ¾ of the offspring are black, and ¼ is white.

	FEMALE		
	B	b	
M A L E	B	BB	Bb
	b	Bb	bb

How to know what color, or what trait will show...

If it is a _____, then it will have the trait of the _____.

- _____
- _____

If it is a hybrid, it will always show the dominant trait.

- _____

Question: If we are talking about eye color, and I tell you brown eyes(E) are dominant over blue (e) what eye color will the following people have?

EE - _____ Ee -- _____ ee - _____

Homozygous vs. heterozygous

If the organism has two of the _____, (BB or bb) it is considered _____!

If the organism has _____, (Bb) it is considered _____!

Genotype vs. phenotype

Genotype is the _____ . (BB, Bb, bb).

Genotype = genes!

Phenotype is what it will _____ . (black, white)

Phenotype = looks!

Incomplete Dominance

Sometimes the dominant-recessive pattern does not always work.

When a *purebred black cat* and a *purebred white cat* are crossed its offspring can be _____

Neither of the parents' alleles are dominant or recessive.

Punnett square

An easy method to figure out what the off spring will look like!

