## PUNNETT SQUARE STORIES

For each of the following problems:

- List the genotypes of the parents.
- Diagram and complete a Punnett square
- Give the phenotype percentages of the offspring.

1. In garden peas, round seed coats (R) is dominant over wrinkled seed coats (r). What will the results be of a cross between a <u>homozygous dominant male</u> and a <u>recessive female</u>?

Parents:	Punnett Square:			Phenotype & %:
Male: RR		R	R	Round Seeds: 100%
Female: rr	r	Rr	Rr	Wrinkled Seeds: 0%
	r	Rr	Rr	

2. In peas, **yellow color (Y)** is dominant to **green (y)**. What will be the results of a cross-pollination of a <u>heterozygous female</u> and a <u>heterozygous male</u>?

3. In humans, **straight toes (S)** is dominant over **curled toes (s)**. What would be the result of a cross between a <u>recessive male</u> and a <u>heterozygous female</u>?

4. In dogs, straight ears (E) is dominate over droopy ears (e). What are the results if <u>two heterozygous dogs</u> have a litter of puppies?

5. In a certain species of mouse, pointed ears are dominant over round ears. What would the results be if two hybrid mice reproduced?

6. In a certain species of dog, a black nose is dominant over a pink nose. What would the results be if a purebred dominant male and a purebred recessive female reproduced?

7. In humans, brown eyes are dominant over blue eyes. What are the possible genotypes and phenotypes of children who have a heterozygous father for eye color and a mother who is homozygous brown?

8. In humans, curly hair is dominant over straight hair. A woman heterozygous for hair curl marries a man with straight hair and they have four children...

9. In roses, red flowers are dominant over white flowers. What are the possible offspring when a homozygous red rose is crossed with a homozygous white rose?

10. In humans, dimples is dominant over no dimples. What are the possible offspring for a heterozygous female and a homozygous dominant male?

11. In humans, free ear lobs are dominant over attached ear lobes. What are the possible offspring for a heterozygous female and a homozygous recessive male?

12. In humans, cleft chins are dominant over no cleft chins. What are the possible offspring for a heterozygous female and a heterozygous male?

13. In rabbits, black fur is dominant over white fur. What are the possible offspring for a heterozygous black male and a homozygous white female?

14. In rabbits, blue eyes are dominant over red eyes. What are the possible offspring for a heterozygous male and a red-eyed female?

15. In fruit flies, red eyes are dominant over white eyes. What are the possible offspring for two white-eyed fruit flies?