

Name \_\_\_\_\_

## Punnett Square Questions

**Introduction:** The Punnett square is a way to show how alleles can combine when egg and sperm join.

**Purpose:** The purpose of this investigation is to explore how Punnett squares are used to predict the outcomes of monohybrid genetic crosses.

Look at your Punnett Squares to answer these questions.

### Eye Color

1. What is the genotype of the mother: homozygous dominant, heterozygous, or homozygous recessive?
2. What is the phenotype of the mother: brown eyes or blue eye?
3. What is the genotype of the father: homozygous dominant, heterozygous, or homozygous recessive?
4. What is the phenotype of the father: brown eyes or blue eye?
5. How many of the children are homozygous dominant? \_\_\_\_\_
6. How many of the children are heterozygous? \_\_\_\_\_
7. How many of the children are homozygous recessive? \_\_\_\_\_
8. How many of the children have brown eyes? \_\_\_\_\_
9. How many of the children have blue eyes? \_\_\_\_\_
10. The ratio of brown eye children to blue eye children is \_\_\_\_\_

### Hair Color

11. What is the genotype of the mother: homozygous dominant, heterozygous, or homozygous recessive?
12. What is the phenotype of the mother: dark hair or blonde hair?

13. What is the genotype of the father: homozygous dominant, heterozygous, or homozygous recessive?
14. What is the phenotype of the father: dark hair or blonde hair?
15. How many of the children are homozygous dominant? \_\_\_\_\_
16. How many of the children are heterozygous? \_\_\_\_\_
17. How many of the children are homozygous recessive? \_\_\_\_\_
18. How many of the children have dark hair? \_\_\_\_\_
19. How many of the children have blonde hair? \_\_\_\_\_
20. The ratio of dark hair children to blonde hair children is \_\_\_\_\_

#### Height

21. What is the genotype of the mother: homozygous dominant, heterozygous, or homozygous recessive?
22. What is the phenotype of the mother: tall or short?
23. What is the genotype of the father: homozygous dominant, heterozygous, or homozygous recessive?
24. What is the phenotype of the father: tall or short?
25. How many of the children are homozygous dominant? \_\_\_\_\_
26. How many of the children are heterozygous? \_\_\_\_\_
27. How many of the children are homozygous recessive? \_\_\_\_\_
28. How many of the children are tall? \_\_\_\_\_
29. How many of the children are short? \_\_\_\_\_
30. The ratio of tall children to short children is \_\_\_\_\_