

Name: _____

Period: _____

Zork Genetics

Directions: Using the alleles in the questions, create Punnett squares to help you answer the question. Make sure you are answering all parts of the question.

1. Green skin (G) is dominant to yellow skin (g). What could the possible offspring's **phenotypes** be when a heterozygous green skinned zork mates with a homozygous yellow skinned zork?

2. Having two horns (H) is dominant to having only one horn (h). What could the **genotypes** be when a homozygous two horned zork mates with heterozygous two horned zork?

3. Green skin (G) is dominant to yellow skin (g). What are the possible **genotype** and **phenotypes** when a heterozygous green skinned zork mates with a heterozygous green skinned zork?

4. Purple lips (L) are dominant to orange lips (l). What are the possible **genotypes** and **phenotypes** when a homozygous orange lipped zork mates with a homozygous purple lipped zork?

5. Tall zorks (T) are dominant to short zorks (t). Tork, who is a homozygous tall zork meets Vorkina, who is short. What are the **phenotypes** and **genotypes** of their possible children?

6. Tork and Vorkina have two children. One is a boy named Torky and the other is a girl named Vorki. Many years later, Torky meets and marries a girl name Morkalina who is short. What are the **phenotype** possibilities for their offspring? Hint: Use #5 for Torky's height.

7. Vorki, the daughter meets a zork name Spork, who is heterozygous for tall. How many children could be tall? How many children could be short? Hint: Use #5 for Vorki's height.
