**Practice Genetics Vocabulary**

**Vocabulary**

**Gene** = a section of DNA that codes for a trait **Homozygous** = both alleles are the same

**Allele** = different version of genes **Heterozgyous** = both alleles are different

Use the information below to state the **genotypes** (letters, what is inside and we don’t see) and **phenotypes** (words/descriptions, the physical appearance).

**Gene Eye Color Petal Color Height Head Covering**

**Alleles** B – brown dominant – red T – tall dominant – furry

 b – blue recessive – white t – short recessive – bald

1. **Give the genotypes.**

Heterozygous red \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Furry \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Blue \_\_\_\_\_\_\_\_\_\_\_ Heterozygous brown \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous bald \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ White \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tall \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ homozygous tall \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous white \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Red \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Give the phenotypes.**

BB \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ff \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tt \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bb \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tt \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bb \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Give the genotypes (g) and the phenotypes (p).**

Heterozygous eye color g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Heterozygous head covering g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous recessive height g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Heterozygous petal color g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous dominant height g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous recessive eye color g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous dominant petal color g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Heterozygous height g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous recessive head covering g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Homozygous dominant eye color g \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Practice Punnett Squares**

1. Draw a punnett square for a cross between a homozygous dominant red plant with a recessive white plant. Give the probability of the phenotypes and genotypes for the offspring.

**Genotype** (genes/letters):

**Phenotype**( physical appearance/words):

1. If the genes in people from Mars code green skin as dominant and yellow skin as a recessive trait, what would the offspring of two heterozygous green Martians be? Use a punnett square and state the probability of the phenotypes and genoytpes.

**Genotype:**

**Phenotype**

1. In video games, spiky hair is dominant over curly hair. Draw the punnett square of a cross between a homozygous spiky haired character and a character with curly hair. Give the probability of phenotypes and gentoypes for the offspring.

**Genotype:**

**Phenotype:**

1. If Mario, who is heterozygous for brown hair, had children with Princess Peach, who is blond, what would their children look like? Prove your answer by drawing a punnett square and giving the probability of the phenotypes and genotypes for the offspring.

**Genotype:**

**Phenotype:**