

Name \_\_\_\_\_ Period \_\_\_\_\_

### Human Trait Activity

Introduction: You will practice Punnett squares using your own traits! To make this more simple, all dominant traits will be considered heterozygous (Dd). After you have determined your traits and genes, you will 'mate' with a partner. For each trait, you and your partner will set up and complete a Punnett square and determine the phenotypic and genotypic ratio of the offspring.

Procedure:

1. Write down your genotype and your partner's genotype in Table 1.
2. Using the information in Table 1, set up and complete a Punnett square for each of the traits.
3. Determine the phenotypic and genotypic ratio for each trait.

Table 1: Your phenotype and your partner's phenotype (Remember: a dominant trait is automatically heterozygous for this activity.).

Traits	You	Partner
Dark Hair (Dd) or Light Hair (dd)		
Free Ear Lobes (Ee) or Attached Ear Lobes (ee)		
Freckles (Ff) or No Freckles (ff)		
Right-handed (Rr) or Left-handed (rr)		
Straight thumb (Ss) or Hitch-hikers thumb (ss)		
Widow's Peak (Ww) or Straight Hair (ww)		
Tongue Roller (Tt) or Non-tongue Roller (tt)		

Punnett Squares:

#### Hair Color


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Ear Lobes**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Freckles**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Hand Preference**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Thumb**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Hair Line**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_

**Tongue**


Phenotypic Ratio: \_\_\_\_\_ Genotypic Ratio: \_\_\_\_\_