

# Mendelian Genetics Pea Activity

Group Names: \_\_\_\_\_ Hour \_\_\_\_\_ Date: \_\_\_\_\_

Date Assignment is due: \_\_\_\_\_ Why late? \_\_\_\_\_ Score: + ✓ -  
Day of Week Date If your project was late, state why

**Directions:** Follow along as we learn how to cross peas.

**Traits:**

- Length: Dominant: long; Recessive: short
- Seed shape: Dominant: round; Recessive: angular
- Pod color: Dominant: green; Recessive: yellow

1. **Length:**            Coin 1: Heads            Tails                            Coin 2: Heads            Tails

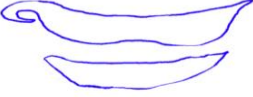
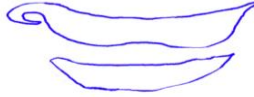
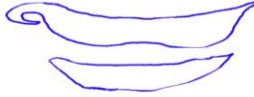
Genetic code: TT Tt tt            Physical trait: \_\_\_\_\_

2. **Seed shape:**    Coin 1: Heads            Tails                            Coin 2: Heads            Tails

Genetic code: SS Ss ss            Physical trait: \_\_\_\_\_

3. **Pod color:**        Coin 1: Heads            Tails                            Coin 2: Heads            Tails

Genetic code: CC Cc cc            Physical trait: \_\_\_\_\_

		
<b>Length of pea</b>	<b>Yellow or green</b>	<b>Round or angular seeds</b>

**Traits are the outward, physical characteristics of an organism. Physical traits are called phenotype.**

- Length, Seed shape, Pod color

**Phenotypes (physical characteristics) are inherited information from an organism's internal genetic code, which is called genotype.**

- TT, Tt, tt

**Each genotype has two coded bits of information (one from each parent). This coded bit of information is called an allele.**

- T, t

**Two of the same alleles is called a homozygous genotype**

- TT, tt

**Two different alleles is called a heterozygous genotype**

- Tt

4. Draw and describe your pea based on the three traits we flipped for.

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5. After each trait above, state whether it is dominant or recessive.

6. Next, choose another person's pea to cross with. List the genotypes and phenotypes for your pea's mate below for all three traits:

Phenotype \_\_\_\_\_ Genotype \_\_\_\_\_

Phenotype \_\_\_\_\_ Genotype \_\_\_\_\_

Phenotype \_\_\_\_\_ Genotype \_\_\_\_\_

7. In the space below, do a Punnett Square for the three traits above. Use the genotype of your pea and the genotype of the mate of your pea (a pea from the other group).




8. In the space below, draw and describe what the offspring of your pea pair will most likely look like.

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