Post-lab Questions
Inheritance in Maize

1. Can you infer from this data which trait is dominant and which is recessive? Explain why.

2. Compare the ratio of purple to yellow corn in the population. What were the class averages for yellow and purple corn kernels? To calculate the ratio, divide each number by the smaller of the two numbers.

3. With this information, how could this generation of corn have inherited pigmentation in this way? What do the genotypes of the parent generation have to be? Construct a Punnett square by using the following key:

   P = the purple allele
   p = the yellow allele

4. When Mendel studied his second generation of pea plants, he repeated the experiment thousands of times. What does this contribute to an experiment, and how would your results change if you counted kernels on thousands of ears of corn instead of just 100?

Post-lab Questions
Human Population Study

1. Compare the results of this study with what you expected to occur. Do you think that dominant traits are more common or stronger? Are recessive traits less common or weaker? What did the results of the experiment prove?

2. For each of your traits, list your phenotype and the corresponding possible genotype(s) for each trait.

	Phenotype	Genotype
Chin (C or c)		
Hairline (W or w)		
Earlobes (E or e)		
PTC (T or t)		
Thumb (B or b)		
Little Finger (L or l)		
Mid-Digit Hair (H or h)		
Dimples (D or d)		

3. Choose one of your traits, and use Punnett squares to predict the genotypes of your parents. What are possible combinations that could have given you that trait?

3. After using the Human Traits Wheel, do you expect any other class members to have the same number as you?
    a. If there are students that have the same number, what can you conclude about those people? Are they related just because they have the same number?

    b. If there is great diversity within the class population, what does that tell you about your peers in the class?

4. How would the class data change as you increased the number of students that recorded their traits? Do you think that this would change the number of dominant or recessive traits in any significant way? How would it affect the outcome of the human traits wheel?