Mendel's Accomplishments: Pea Plants
Part A:

From the summer of 1856 through 1863, Mendel researched on pea plants because of their purity and more easily observable characteristics. His research question was *How many different forms would result from the random fertilization of two kinds of pea plants?* He hypothesized that *the existence of factors for each characteristic responsible for different variations of a trait doesn't occur together*.

In other words, Mendel wondered if you crossed a long stem pea plant with a short stem pea plant, could you predict the result of creating a long stem or short stem pea plant? Mendel carried out his experiment and collected the following data.

Characteristic					Ratio
Seed Shape	Round	5,474	Angular	1,850	2.959:1
Pod Color	Green	428	Yellow	152	2.816:1
Stem length	Long	787	Short	277	2.841:1
TOTAL	Dominant	6,689	Recessive	2,279	2.935:1

Data are used to inform conclusions and help scientists learn new things. Take a close look at Mendel's data. What patterns do you see in the data? How can the data help explain the traits and how they are inherited?

Name: _____   Period 2

My Observations of Patterns:

Lots of pea plants. More dominant than recessive.

If rounded, the ration [teacher correction: ratio] would be almost 3:1 for all of the characteristics. That might be important, but I don't know why.

There are higher numbers for round and angular than the others.

The original question was about long or short stems, but other data is [teacher correction: are] presented.

Observations with my Partner/Group:

Each characteristic only has two options.

The dominant characteristic happens three times more often than the recessive one.

The parent with the recessive trait would only have one similar child, but the parent with the dominant trait would have three similar children.

We don't know why some traits have higher numbers, but the ratios are close.