Name _____

The Old Garden Experiments

Kinda "Corn-E"

Mr Roberts is a big fan of home-grown sweet corn and this year he has designed an experiment to explore what causes the most sweet and tasty corn. He has heard through the gardener's gossip hotline that timely waterings with Miracle Grow fertilizer will make the sweetest corn ever. His experiment consists of planting corn seeds in the garden and thinning the seedlings down to 25 plants (5 plants per row). Next he plans to water the plants 3 times per week but 1 of the weekly waterings will include various amounts of Miracle Grow (MG) fertilizer according to the following schedule:

Row	grams of MG per watering
1	0
2	50
3	100
4	150
5	200

1. What is Mr Roberts' hypothesis ?

2. What is the Independent variable in this experiment ?

3. What is the Dependent variable in this experiment ?

4. Explain what the control group is OR describe how you would create a more controlled experiment ?

5. How many experimental groups were used in this experiment ?

6. Discuss 3 other variables that may affect the data other than MG fertilizer ?

In The RED Zone

Mr. Roberts is also a big fan of garden tomatoes and wondered how the distance between plants affects how many tomatoes are produced per plant. To explore this issue, Mr. Roberts marked his tomato garden into 3 side-by-side plats that were each 5 feet long by 5 feet wide. Then tomato seedlings were planted **5** inches apart in plot #1, **10** inches apart in plot #2, and **15** inches apart in plot #3.

1. What is the question or puzzle that Mr. Roberts is trying to solve ?

2. What is the Dependent variable for this experiment ?

3. What is the Independent variable for this experiment ?

4. Discuss 3 variables that must be held constant for this to be a well controlled experiment ?

5. Explain what the control group is OR describe how you would create a more controlled experiment ?

What's All the BUZZ About ?

Mr. Sting's biology class performed an experiment to determine the effects of different pesticides on honeybees. The students placed five bees in each of seven identical containers. Six of the containers were sprayed with equal amounts of different pesticides. The seventh container was not sprayed. The living bees were counted at five minute intervals for two hours.

1. What is the question or puzzle that Mr. Sting's students are trying to solve ?

2. What is the Dependent variable for this experiment ?

3. What is the Independent variable for this experiment ?

4. Discuss 3 variables that must be held constant for this to be a well controlled experiment ?

5. Explain what the control group is OR describe how you would create a more controlled experiment ?