

REVIEW SHEET - GUIDELINES

Biology- Experimental Design Example

IND, DEP
Objective of experiment: To test the effect of fertilizer on tomato growth.

Hypothesis: If a tomato plant is fertilized then it will grow larger.

- Materials:
- 20 tomatoes of same species, age, size
 - 20 two gallon pots
 - rich loam soil
 - miracle grow
 - water
 - 20 grow lights (40W)

Procedure: **BE SPECIFIC WITH ACCURATE DIRECTIONS**

1. Place 500 grams of soil in each pot.
2. Label each pot 1 through 20.
3. In pots 1-10, do not add any other nutrients.
4. Plant a tomato in each pot at a depth of 6 inches.
5. In pots 11-20, add 5 grams of miracle grow and thoroughly mix fertilizer in soil.
6. Place each pot 12 inches under the each 40W grow light and expose for 12 hours per day.
7. Water each plant daily at 12 pm with 500 ml. of water.
8. Record height of plant weekly for a period of ten weeks.

USE NUMBERED STEPS / NO PERSONALIZATION

IND. VAR DEP. VAR.

The Effect of Fertilizer on Tomato Growth.

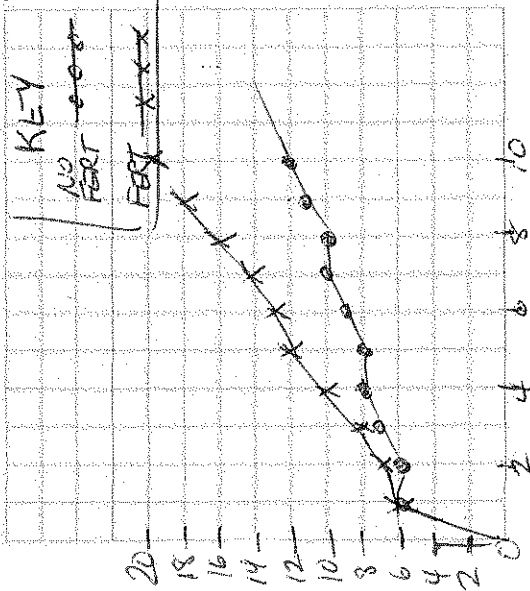
Time (weeks)	Growth (height in inches)	
	No Fertilizer	Fertilizer
1	6	6
2	6	7
3	7	8
4	8	10
5	8	12
6	9	13
7	10	14
8	10	16
9	11	18
10	12	20

CONTROL EXPERIMENTAL

Graph Title:

The Effect of Fertilizer on Tomato Growth

or
Fertilizer vs Tomato Growth



Time (weeks) (IND VAR)

USE LARGE AMOUNT OF GRAPH PAPER

Conclusion: DO NOT JUST RESTATE DATA

Explain how the fertilizer affected plant growth using your data as support evidence.

FERTILIZER IMPROVES PLANT GROWTH BECAUSE THE FERTILIZED TOMATOES GREW LARGER THAN THE NON-FERTILIZED TOMATOES.

← MUST CONTAIN IND. VAR. 1ST THEN DEP. VAR.

MUST ALWAYS GRAPH 2 GROUPS
- CONTROL
- EXPERIMENTAL

MUST CONTAIN A KEY WITH LABELS FOR @ GROUP