Scientific Method: Tying it all together

Mr. Mertin wants to know if the type of liquid he gives his mums affects the growth. He plants 3 mums in separate pots and places each pot in the window sill, allowing the same amount of sunlight to reach each plant. He gives the first mum tap water, the second mum 2% milk, and the third mum dr. pepper daily for 3 weeks. He measures each mum in centimeters at 5pm each Friday and records the data in his science notebook.

1) Identify the independent variable (IV):
Type of liquid
2) Identify the dependent variable (DV):
Height of mums in centimeters
3) Write the testable question in the correct format:
Will the type of liquid I feed my plants: tap water, 2%milk or Dr. Pepper affect the height of my mum plant?
4) Write a hypothesis in the correct format:
If I use tap water, 2%milk and Dr. Pepper to water my mum plants then the tap water will work the best because it has only the best ingredients needed to aide growth in plants.

5) Identify at least 5 constants for this experiment:
a. Amount of liquid
b.Type of plant
c. Time of day watered
d. Same amount of sunlight
e. Same type of plant potter

6) Write the types of liquids and DV in the correct places on the following data table.

Affect of different liquids on mum growth				
	Trial 1	Trial 2	Trial 3	Average
Tap water	4 cm	6cm	8cm	6cm
2 %milk	2 cm	4 cm	8 cm	4.67 cm
Dr. Pepper	6cm	7 cm	8cm	7cm

7) Record the following information in the data table above and calculate the averages:
Tap water- Trial 1= 4cm; trial 2= 6cm; trial 3= 8 cm.
2% Milk- Trial 1= 2cm; trial 2= 4cm; trial 3= 8cm.
Dr. Pepper- Trial 1= 6cm; Trial 2= 7cm; Trial 3= 8cm