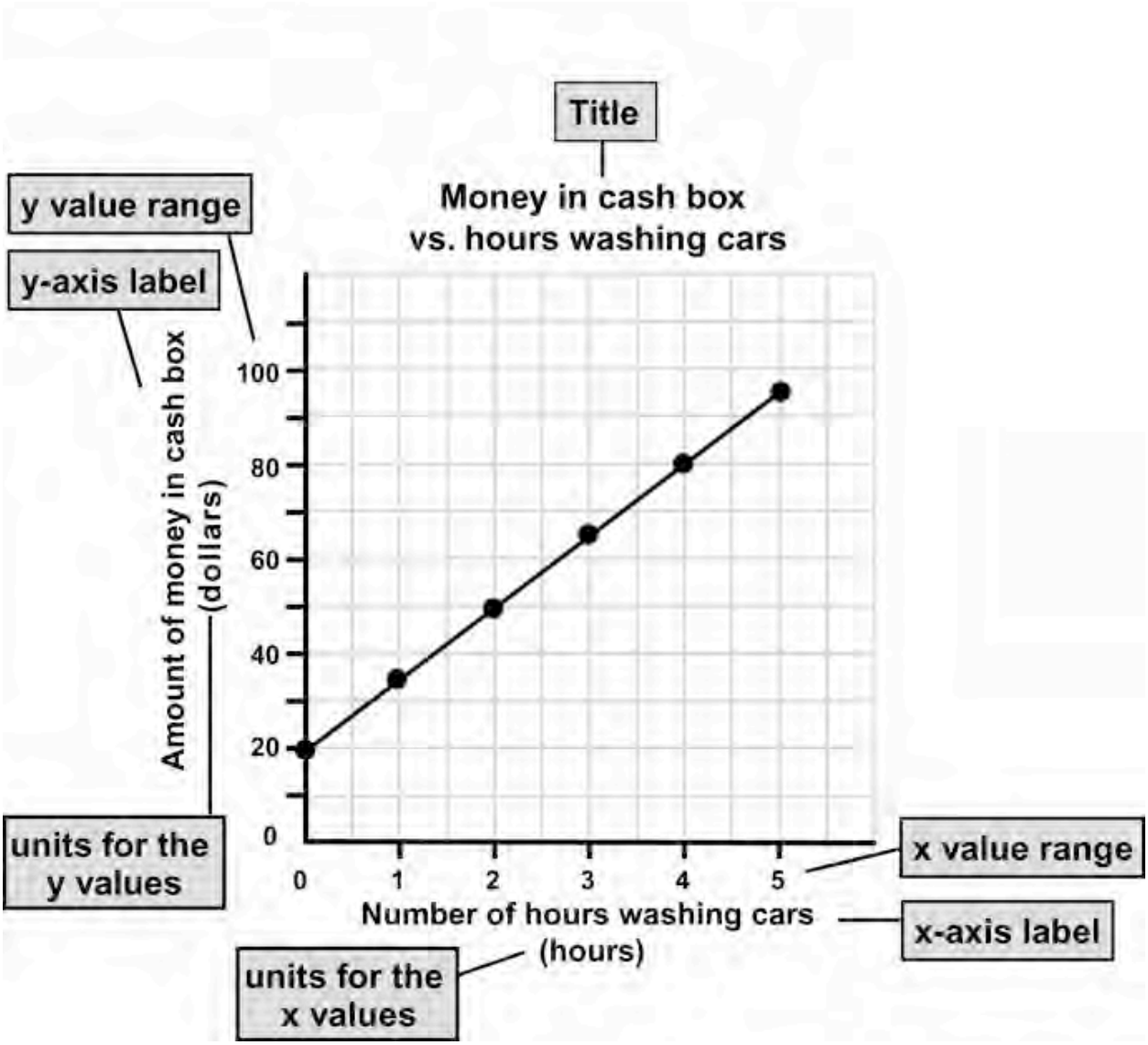
Graphing Refresher
Integrated Science: Physics/Design

Name_____Per_____

Remember these guidelines when graphing:

M: maximize your graph (use all of the graph paper!)
IX: Independent variable on the x-axis and dependent variable on the y-axis
ES: Equally spaced scale increments
T: Title
U: Units and labels on both axes
CS: Continuous smooth curve to connect the data points.

The data presented on the scatterplot below is the amount of money in a cash box during a car wash that lasted for five hours. Use this graph to answer the questions below.



Graphing Refresher
Integrated Science: Physics/Design

1. What is the title of the graph?

2. Read the labels for the x-axis and the y-axis. What two variables are represented on the graph?

3. What unit is used for the variable on the x-axis?

4. What unit is used for the variable on the y-axis?

5. What is the range of values for the x-axis?

6. The range of values for the y-axis is 0 to $120. What would the graph look like if the range of values was 0 to $500? Where would the data appear on the graph if this were the case?

7. What is the relationship between the variables that are represented on the graph? *(Write a sentence that describes the information presented on the graph. For example, you may say, "As the values for the variable on the x-axis increases, the values for the variable on the y-axis decreases.)*

8. The theater club at your school needs to raise $1000 for a trip that they want to take. They will be taking the trip next fall. It is now April. Based on the graph, would you recommend that the group wash cars to raise money? Write out a detailed response to this question. Be sure to provide evidence to support your reasons for your recommendation.

Graphing Refresher
Integrated Science: Physics/Design

Part 2

Here is a data set to use to create a scatterplot. Follow these steps to make the graph.

a. Place this data set in the table below. Each data point is given in the format of (x, y). The x- values represent time in minutes. The y-values represent distance in kilometers. (0, 5.0), (10, 9.5), (20, 14.0), (30, 18.5), (40, 23.0), (50, 27.5), (60, 32.0).

Independent Variable (x-axis)	Dependent Variable (y-axis)

b. What is the range for the independent variable?

c. What is the range for the dependent variable?

d. Make your graph using a full sheet of graph paper. Attach the graph to the back of this packet. Be sure and follow the graphing guidelines listed on the front of this sheet.

Part 3.

Construct a multiple line graph the data table below. Attach the graph to the back of this packet. Be sure and follow the graphing guidelines listed on the front of this sheet.

Gain in Mass of Young Mice

Time (weeks)	1	2	3	4	5	6	7	8	9	10
Mass 1 (mg)	25	115	140	210	400	720	780	810	830	900
Mass 2 (mg)	20	120	125	200	250	300	400	520	540	570
Mass 3 (mg)	30	140	160	220	380	680	690	770	800	950