8th Grade Math/Science AMI

**8th Grade Student,**

Complete the following stations on the AMI day listed below. Return the completed work for the corresponding AMI day when you return to school. Keep the 'Graphing Notes' page at home in your packet to use on subsequent AMI days. Don't forget to put your name on your work. This work shouldn't take you more than 15 minutes to complete. If you need help shoot us an e-mail. We hope you enjoy your snow day (spend some time outside). 😉

***Mrs. Donaldson & Mrs. Nevels***

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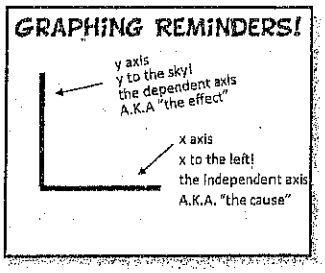
**AMI Day 1:** Station 1 & 2

**AMI Day 2:** Station 3

**AMI Day 3:** Station 4

**AMI Day 4:** Station 5 & 6

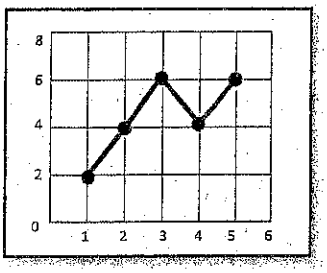
**AMI Day 5:** Station 7 & 8



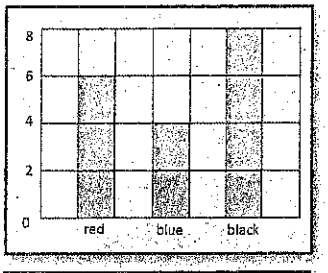

# GRAPHING NOTES

The purpose of a graph is to show a visual representation of relationships between various quantities, parameters or variables.

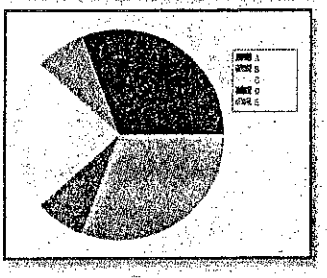
## 3 TYPES OF GRAPHS




1. Line graph: A graph that uses points that are connected by lines. This graph is to be drawn so that the independent data are on the horizontal x-axis and the dependent data are on the vertical y-axis. Line graphs are used to track changes over short and long periods.




2. Bar Graph: A graph that uses bars to show comparisons between categories of data. A bar graph will have two axes and is a way to visually represent a set of data. Bar graphs are useful for data that is easy to categorize. The category is traditionally placed on the x-axis, and the values are put on the y-axis.



3. Pie Chart: A chart (or a circle chart) is a circular graphic divided into slices to display data, information, and statistics in an easy-to-read 'pie-slice' format. A pie chart with varying slice sizes will show how much of one data element exists, hence the bigger the slice, the more of that particular data was gathered. Good for percentages and fractions.

## DATA TABLE

A collection of related data that is presented in columns and rows.

Data Table

| x | y |
|---|---|
| | |
| | |
| | |

## ELEMENTS OF A GOOD GRAPH FOLLOW THE SULTAN METHOD

| | | |
|---|---|---|
| S | scale | Number the axes on the graph<br>Common numbers (0,2,4,6,8)<br>Clearly written, neat and easy to read |
| U | units | Relays what the numbers stand for<br>Written in parenthesis<br>Examples: (m), (s), (cm), (mL) |
| L | labels | Describes what is being measured on each axis |
| T | title | Place across top of graph<br>Clearly states purpose of the graph<br>Includes information about the x & y axes |
| A | accuracy | Plots points are precise<br>Lines are drawn with a ruler |
| N | neatness | Written clearly<br>Ruler used for lines |

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Directions: Create a data table on the student handout based on the information given below. Use the graphing notes as a resource.

All of the science teachers have a guinea pig. Which of the guinea pigs ate the most food based on two days on food consumption. On day 1, Mrs. Garcia's ate 65 gm, Mrs. Brody's ate 105 gm, Mr. Smith's ate 85 gm, Mrs. Nguyen's ate 93 gm, Mr. Black's ate 150gm, and Mrs. Miller's ate 97 gm. On day 2, Mrs. Garcia's ate 85 gm, Mrs. Brody's ate 90 gm, Mr. Smith's ate 100 gm, Mrs. Nguyen's ate 150 gm, Mr. Black's ate 85 gm, and Mrs. Miller's ate 125 gm.

Consider the data and how many columns and rows you will need to display it.

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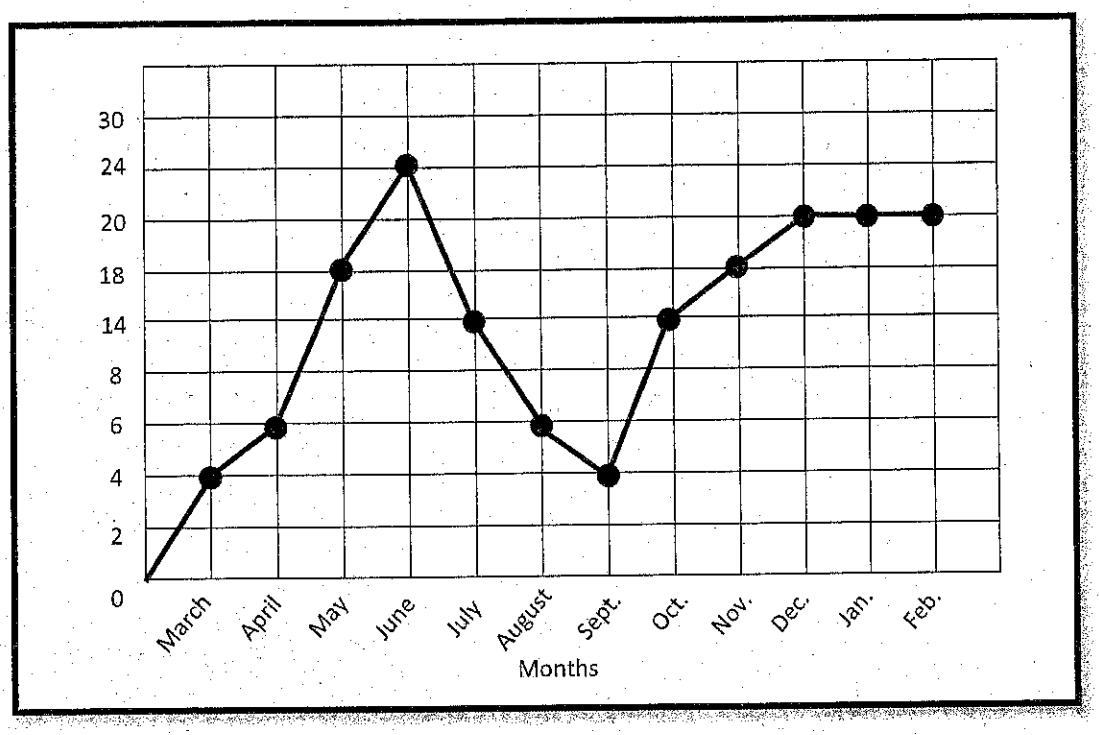
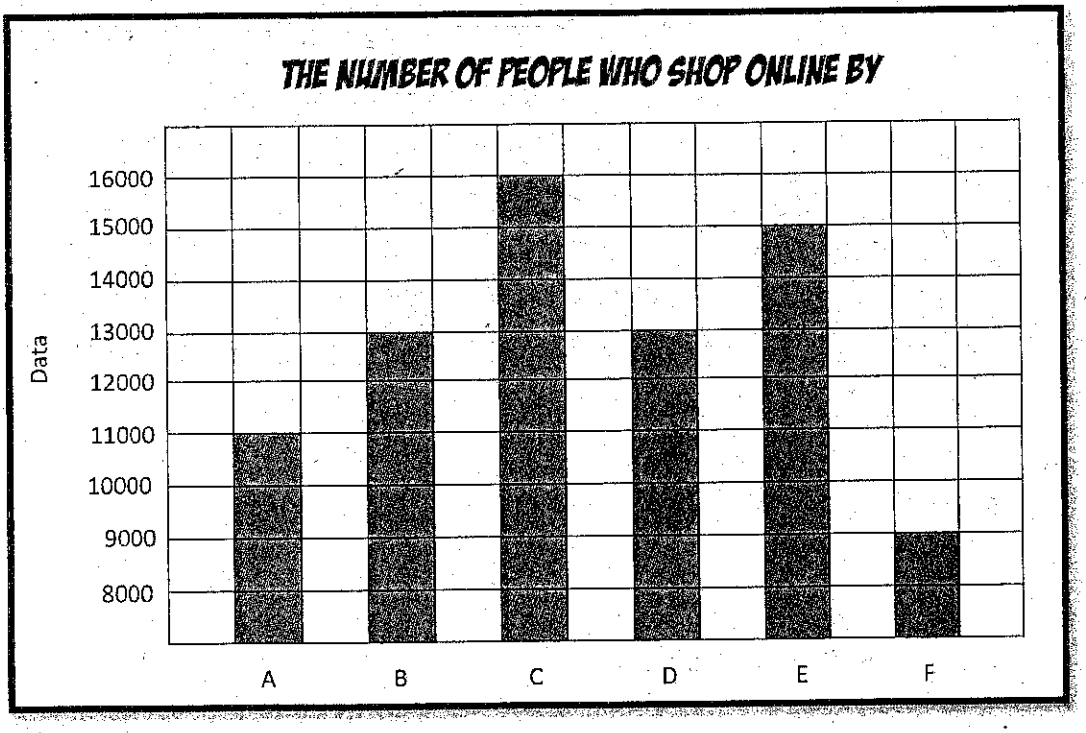
# STATION 6

Directions: Analyze the graphs below using the SULTAN notes as a reference. Find the missing components and list them on the student handout.

1)




2)

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**STATION 5:** Using a ruler create a data table based on the information given for science teachers guinea pigs.

Which guinea pig ate the most?

**STATION 6:** List the missing parts of each graph. Use the SULTAN notes as a reference.

1) Line graph:

2) Bar graph:

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