What's in the Graph?

Name: _____ **Date:** _____

MA.D.1.4.1 The student describes, analyzes and generalizes relationships, patterns, and functions using words, symbols, variables, tables, and graphs.

Select a representation of a graph from the newspaper; cut it out and paste it here.

1. **Describe your graph.** _____

_____

2. **Analyze your graph by identifying the following:**
   a) Title _____
   b) Horizontal axis _____
   c) Vertical axis _____
   d) Legend _____

3. **Generalize the relationship between the horizontal and vertical axes and explain the main focus of your selected graph.** (Use the back of this sheet, if necessary.)

Anticipation Guide Name _____

Concept: Problem Solving – Choosing an Appropriate Graph

Directions: When you are using a graph to organize and present data, you must first decide which type of graph to use. You are now going to complete a study tip to help you know which type of graph to choose before exploring graphs via the Internet. Relying on prior knowledge work with a partner to predict some useful guidelines. Respond to each of the statements and discuss all possibilities. Be sure to consider explanations and support for your responses. When finished, put your pencil down and await instructions from your teacher.

Before you begin, name at least 4 different types of graphs with which you are familiar. _____, _____, _____, _____

Study Tip …

When deciding which type of graph to use, here are some guidelines:

1. ***Use a bar graph when***

_____
_____
_____
_____
_____
_____

2. ***Use a line graph when***

_____
_____
_____
_____
_____
_____

3. ***Use a circle/pie graph for***

_____
_____
_____
_____
_____
_____

Sketches of Bar and Line Graphs

MA.D.1.4.1 and CT.B.1.4.1

Name: _____ Date: _____

I. Complete the data table. Before graphing:

1. What would be an appropriate title? _____

Group #	**#Boys**	**#Girls**

2. What is the word name for the x-axis? _____
3. What is the word name for the y-axis? _____
4. How would you differentiate between the number of problems correct and the number of problems incorrect on the graph?

_____

II. Complete the process of graphing.

Graph 1
Describe the graph: _____

Graph 2
Describe the graph: _____

III. Analysis and generalization that fits both graphs.

Analyze:

a) Title:
b) Label for the x-axis:
c) Label for the y-axis:
d) Legend:

Generalize: Which graph is the best representative of the data collected and why?

Formative Assessment – Web Search & Sketches – Rubric

MA.D.1.4.1 and CT.B.1.4.1

Name: _____ Date: _____

	Outstanding 4	Good 3	Fair 2	Poor 1	Rating
Cooperative Learning	Stayed on task all period. Made substantial contribution to the group.	Stayed on task most of the period. Made considerable contribution to the group.	Off task too much. Contribution to the group was lacking.	Little/no evidence of contribution. Consistently off task.	
Web Search	Shows clear evidence of efficient search methods. Met objectives.	Shows considerable evidence of efficient search methods. Met most objectives.	Search method is insufficient. Met some objectives.	Little/no evidence of search method. Met few objectives	
Graphs • Content	Content is thorough, easily understood with no extraneous elements.	Content is complete with minor extraneous elements.	Content is complete with major extraneous elements.	Content is incomplete.	
Graphs • Sketch • Best	Sketches are clear and evident of distinct differences in bar and line graphs. Selection of best graph is indicated.	Sketches are clear and evident of distinct differences in bar and line graphs. Selection of best graph is not indicated.	Sketches are vague with poor selection of best graph.	Sketches are vague with no selection of best graph.	
TOTAL					

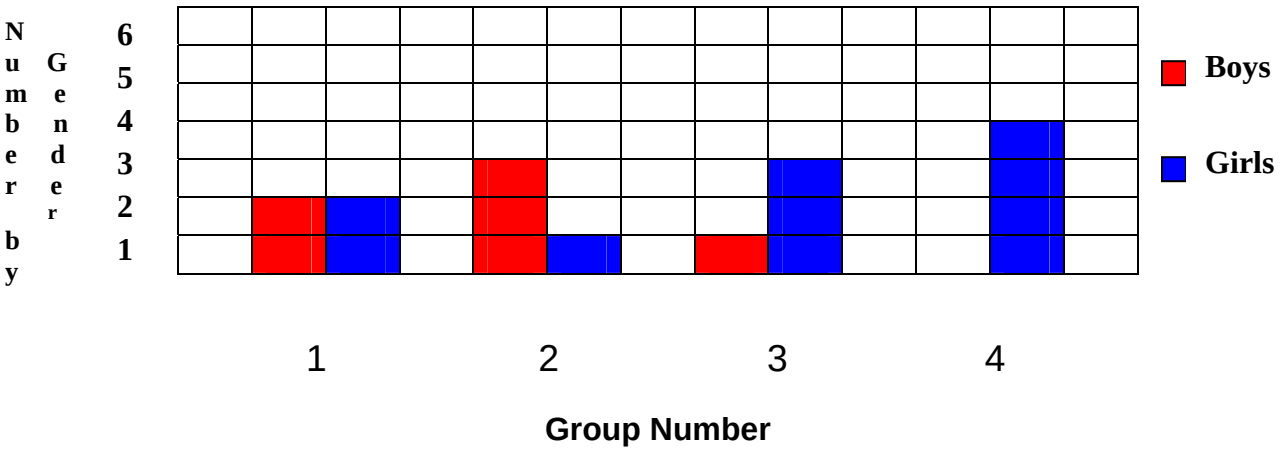
Teacher Comments:

Group Data		
Group	**#Boys**	**#Girls**
Group 1	2	2
Group 2	3	1
Group 3	1	3
Group 4	0	4

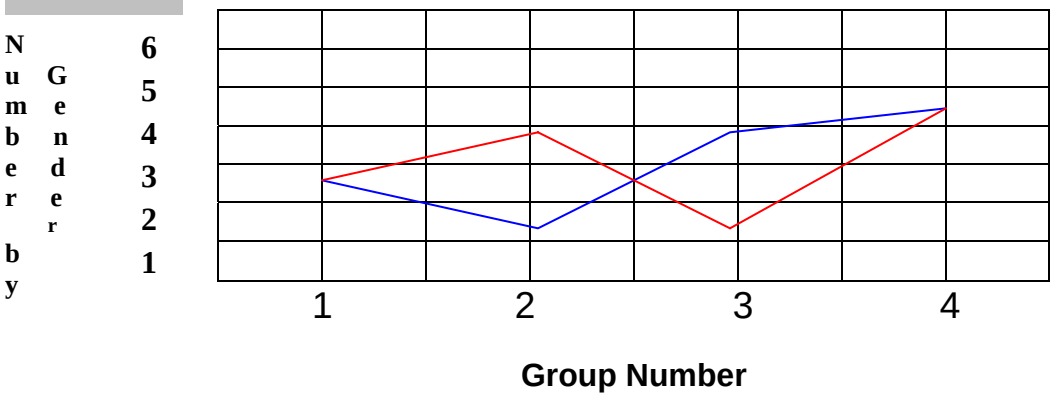
Sample Sketches of Graphs

Answer Key

Column Graph



Line Graph



Analyze:

a) Title: Group Data
b) Label for the x-axis: Group Number
c) Label for the y-axis: Number by Gender
d) Legend: Color codes for boys vs. girls

Generalize:

Each graph compares the number of boys in each group to the number of girls in each group. The bar graph offers a better display, which allows one to focus on a clearer perspective of the two comparisons.

