

Graphing Poster

Congratulations on your purchase of the Really Good Stuff® **Graphing Poster**—a write-on/wipe-off classroom resource to help students create line graphs, bar graphs, and coordinate grids for classroom information and activities.

Inside this Really Good Stuff® set you'll find:

- Write-on/wipe-off **Graphing Poster**, 19" by 24"
- This Really Good Stuff® Activity Guide

Introducing the Graphing Poster

Place the poster in an accessible area in your classroom and provide write-on/wipe-off markers and erasers for student use. This reversible graphing poster can be used in a multitude of ways with students of all grade levels. Below, you will find suggestions for introducing graphing skills to students and activities for students to make their own line graphs, bar graphs, and coordinate grids using the reproducibles in this guide. All of the activities can be adapted to the grade level of your students by changing the data to more appropriately match your curriculum.

Creating Single Bar Graphs

A bar graph uses bars of color to represent the numbers of items in groups. Bar graphs can be horizontal or vertical. Display the desired side of the **Graphing Poster** and begin by having students create a title to identify what kind of information the graph is going to show. Have a student record the appropriate numbers or information on the Y axis and X axis. For example, you might have students create a bar graph to represent "Students' Favorite Colors." Challenge students to color in boxes to represent each student's vote and then relate other information they can find out from reading the completed graph such as:

- Which color is the most favorite?
- Which color is the least favorite?
- How many students are represented on the graph?

To give students extra practice, make copies of the *Blank Grid reproducible* found on page 4 and have them create additional single bar graphs.

Creating Double Bar Graphs

A double bar graph uses bars of color to represent the number of items within groups and can be horizontal or vertical. Display the desired side of the **Graphing Poster** and begin by having students create a title to identify what kind of information the graph is going to show. Have a student record the appropriate numbers or information on the Y axis and X axis. For example, you might have students create a double bar graph to represent "Favorite Subjects For Boys and Girls." Challenge students to color in boxes to represent the boys' and girls' votes for each subject and then relate other information they can find out from reading the completed graph, such as:

- Which subject do the girls like the best?
the boys?
- Which subject do the boys like the least?
the girls?
- Which subject do boys and girls like about
the same?

To give students extra practice, make copies of the *Blank Grid reproducible* found on page 4 and have them create additional double bar graphs.

Creating Line Graphs

A line graph is a quick and easy way to record information about collected data. Not only can students record their data, but they are able to identify trends by interpreting the "up and down" directions of the lines. Display the chosen side of the poster and begin by having students create a title to identify what kind of information the graph is going to show. Record the title at the top of the graph using an erasable marker. Record the numbers and required information on the Y axis and X axis and then ask students to look for certain pieces of information. For example, you could title a graph with "Number of Students Bringing Bag Lunches This Month", label the Y axis with numbers from 0 to 17 and the X axis with the dates of the school days in a month. Each day, have a student record the number of students bringing bag lunches by placing a dot in the appropriate place on the grid and connecting consecutive dots with a line. Be sure to have students identify weekly trends from the direction of the lines, such as more students bring

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their lunches at the beginning of the week than at the end of the week. At the end of the month, have students identify monthly trends by interpreting the line directions. To give students extra practice, make copies of the *Blank Grid reproducible* found on page 4 and have them create additional line graphs.

Creating a Coordinate Grid

A coordinate grid will help students find a particular location by using an ordered pair of numbers or letters. Display the desired side of the **Graphing Poster** and begin by having students create a title to identify what kind of information the grid is going to show. Explain to students that a coordinate grid is made up of intersecting lines that are numbered starting with the number 0. Introduce the term “ordered pair” and explain that it is made up of two numbers. The first number in the pair is found on the X axis and the second number is found on the Y axis. When reading an ordered pair, students need to start at the 0 on the X axis and go over to the first number, then up to the line representing the second number on the Y axis. Show an example by writing the ordered pair (5, 3) on the board. Have a student come up to the poster and place his finger on the 0 on the X axis, then move it along to the 5 and say “over”. Next, have him move his finger up to the 3, say “and up,” then make a dot where the two lines intersect and write the ordered pair next to the dot. Repeating “over and up” each time helps students remember the appropriate direction to take to find the correct coordinates. Write several ordered pairs on the board and allow volunteers to find and name the locations. To give students extra practice, make copies of the *Blank Grid reproducible* found on page 4 and have them locate additional ordered pairs.

Using a Coordinate Grid to Create a Picture

Let your students have some fun using a coordinate grid to create a picture. Write the following coordinate pairs on the board. Choose a student to find the first pair on the grid, place a dot at the correct place, and write the name of the coordinate pair next to the dot. Have a second student do the same for the next pair from the list, and connect the two dots with a line. Continue choosing students to place dots and draw lines until a picture appears (a truck).

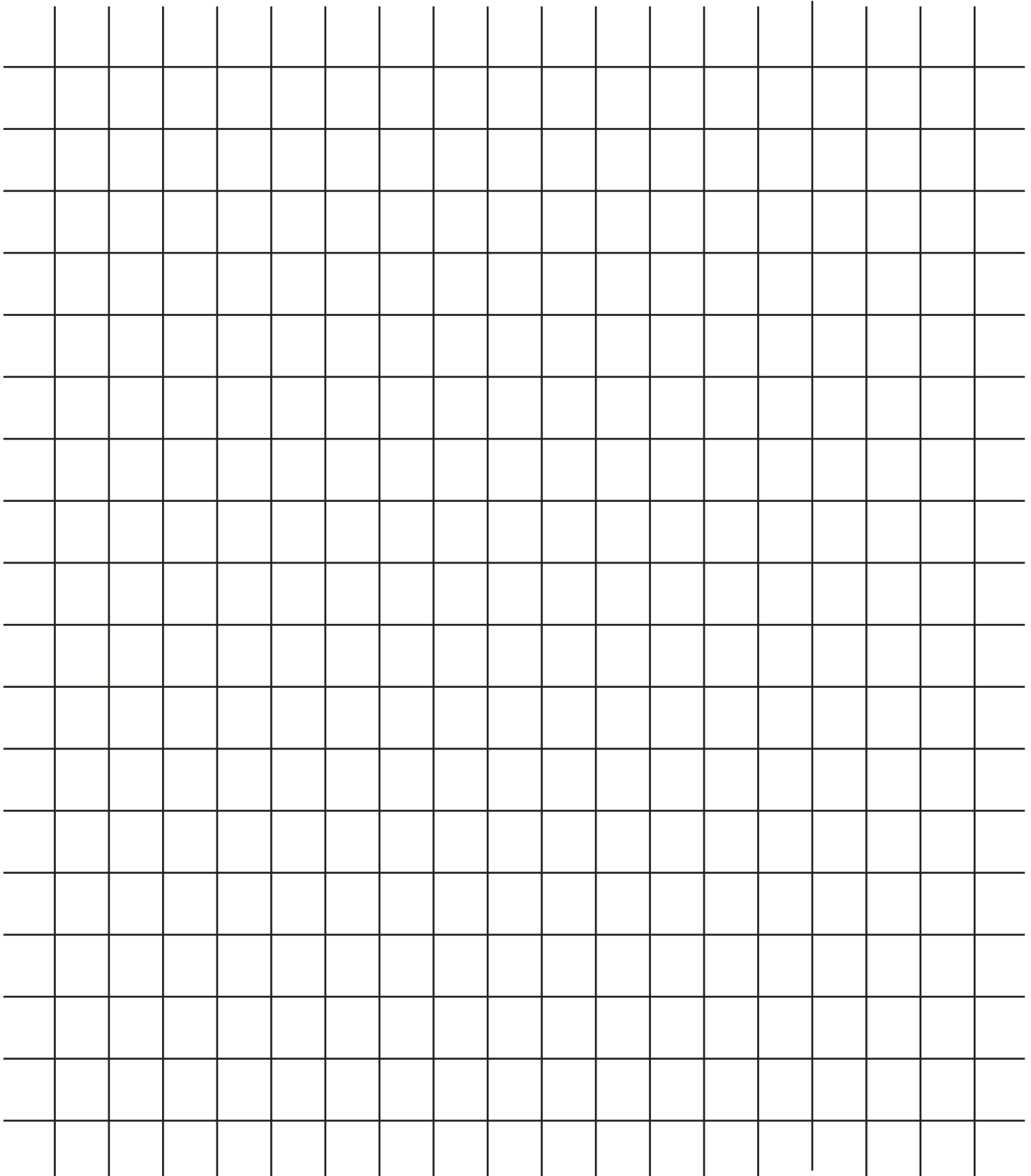
(2,0)
(3,0)
(4,1)
(4,2)
(3,3)
(9,3)
(8,2)
(8,1)
(9,0)
(10,0)
(11,1)
(11,2)
(10,3)
(12,3)
(12,5)
(11,5)
(10,5)
(9,5)
(9,6)
(9,7)
(9,8)
(8,8)
(7,8)
(6,8)
(5,7)
(4,6)
(3,6)
(2,6)
(2,5)
(2,4)
(2,3)
(1,2)
(1,1)

To extend this activity, challenge students to create their own pictures by ordering pairs. Make copies of the *Coordinate Grid Pictures reproducible* found in this guide and have students make dots on the blank grid to create their own pictures and record the appropriate coordinating pairs at the bottom of the sheet. Have students cut off the completed pairs section and give to other students to complete on copies of the *Blank Grid reproducible*. When finished, have students color their pictures and then display them along with the ordered pair sheets on a bulletin board entitled “We Make Picture Perfect Pairs!”

Name _____

Date _____

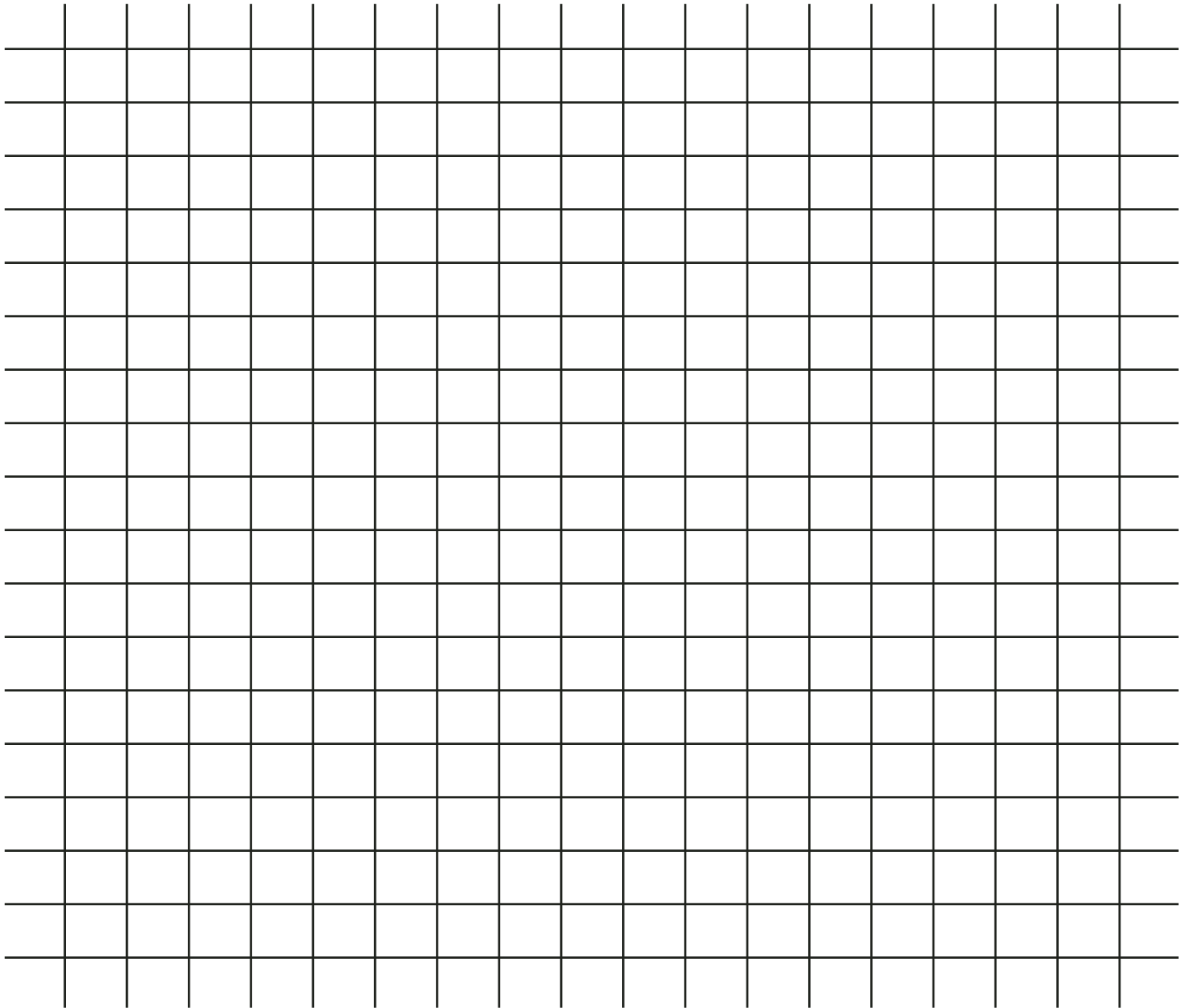
Title _____



Name _____

Date _____

Fill in the numbers on the Y and X axis. Draw a picture on the grid and list the ordered pairs so another student may draw the same picture.



Cut along the dotted line and give to another student.

What picture can you draw with these ordered pairs? See _____ for the answer.

- | | | | | |
|----------|----------|----------|-----------|-----------|
| a. _____ | i. _____ | q. _____ | y. _____ | gg. _____ |
| b. _____ | j. _____ | r. _____ | z. _____ | hh. _____ |
| c. _____ | k. _____ | s. _____ | aa. _____ | ii. _____ |
| d. _____ | l. _____ | t. _____ | bb. _____ | jj. _____ |
| e. _____ | m. _____ | u. _____ | cc. _____ | kk. _____ |
| f. _____ | n. _____ | v. _____ | dd. _____ | ll. _____ |
| g. _____ | o. _____ | w. _____ | ee. _____ | mm. _____ |
| h. _____ | p. _____ | x. _____ | ff. _____ | nn. _____ |