

GRAPHING

and

DATA INTERPRETATION

SKILLS PACK

Interpret the Bar Graph

Name: _____

Each square on the graph represents _____

Favorite Fruit

apples

strawberries

bananas

grapes

Number of People

Type of Fruit

Answer the questions:

1. How many people prefer bananas as their favorite fruit?

2. How many people prefer strawberries as their favorite fruit?

3. How many people prefer grapes as their favorite fruit?

4. What is the difference between the number of people who prefer strawberries and the number of people who prefer apples?

5. Altogether, how many people prefer grapes and bananas?

6. Which type of fruit is the least popular?

7. Which type of fruit is the most popular?

8. Altogether, how many people were asked for their favorite fruit?

Collecting and Graphing Data - page _____

Name: _____

Transfer the data from the tally chart and bar graph to this line plot.

Numbers Rolled Using a Die

--	--	--	--	--	--

Now use the tally chart, bar graph and line plot to interpret the data that you collected. Write what you can conclude by looking at the data. Use keywords such as "more than," "less than," "altogether."

a) _____

b) _____

c) _____

d) _____































e) _____

Interpret the Picture Graph

Name: _____

Number of Muffins Sold at the Bakery

Day of the Week

Monday	    
Tuesday	   
Wednesday	       
Thursday	        
Friday	   

Each picture on the graph represents 10 muffins.

Answer the questions:

1. How many muffins were sold on Wednesday?

2. How many muffins were sold on Thursday?

3. Altogether, how many muffins were sold on Monday and Wednesday?

4. How many more muffins were sold on Thursday than on Monday?

5. How many more muffins were sold on Wednesday than on Friday?

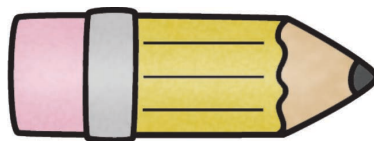
6. Altogether, how many muffins were sold at the bakery during the week?

7. On which days were the least number of muffins sold?

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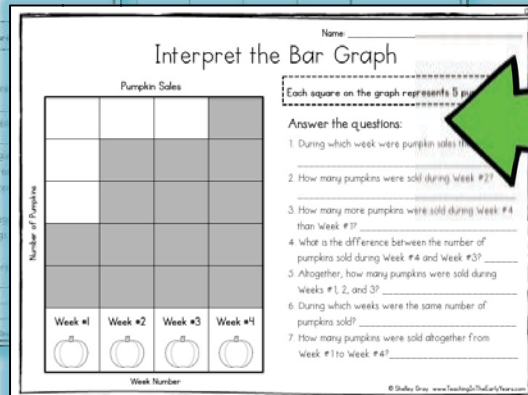
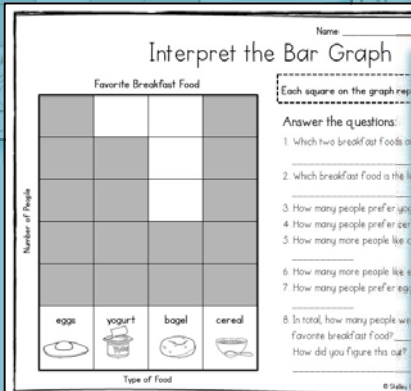
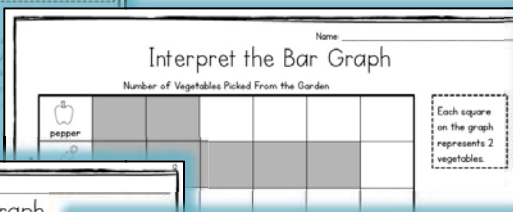
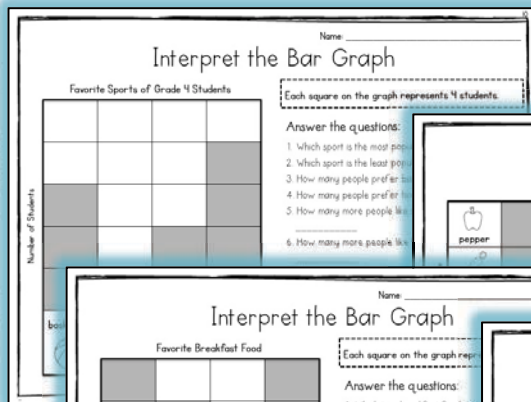
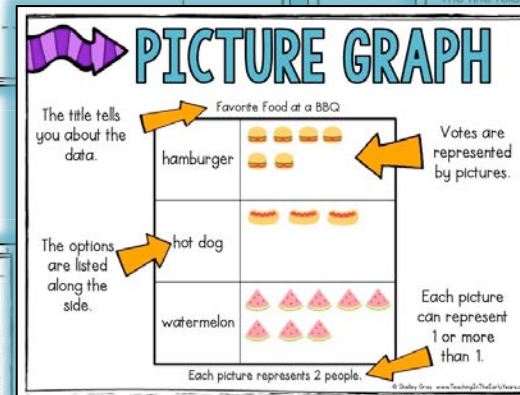
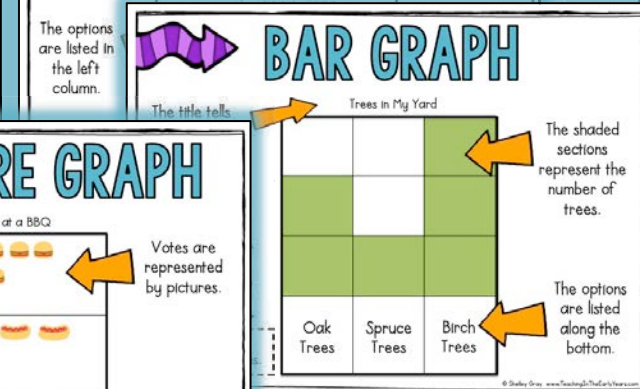
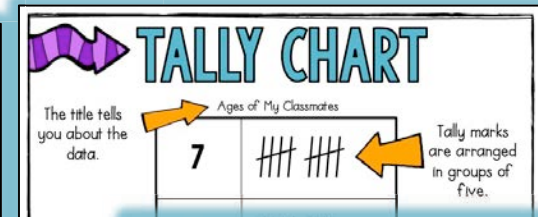
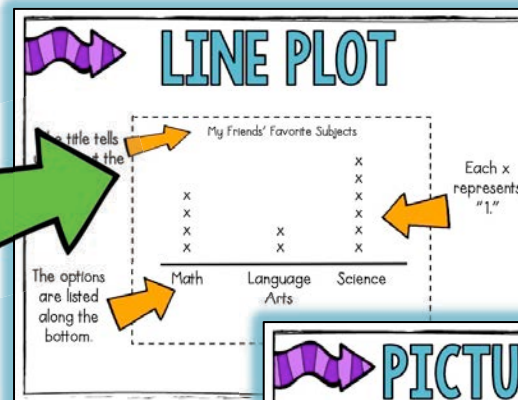
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This Skills Pack Includes:

Classroom Anchor Charts for the four types of graphs in this package: bar graphs, tally charts, picture graphs and line plots.



























Eight "Interpret the Bar Graph" activities.



Interpret the Picture Graph

Name _____






Number of Muffins Sold at the Bakery

Day of the Week	Muffins Sold
Monday	    
Tuesday	   
Wednesday	              

Name: _____

Interpret the Picture Graph

Cups of Coffee Sold at the Coffee Shop


Day of the Week	Cups of Coffee Sold	Legend
Monday		Each picture on the graph represents 10 cups of coffee.
Tuesday		
Wednesday		
Thursday		
Friday		

Name: _____

Interpret the Line Plot

Favorite Kind of Pizza

X X X X X		X X X X X X		X X X X
Pepperoni	X	Mushroom	X	Pineapple



Name: _____

Interpret the Line Plot

Favorite Kind of Cookie

x	x	x	x
	x		x
x	x x		x
	x x		x x
x	x x		x x
x	x x		x x
x	x x	x	x x
x	x x	x	x x

peanut butter
chocolate chip
gingerbread
sugar
oatmeal raisin

x = 1 person

Answer the questions:

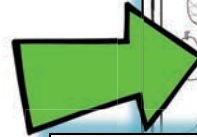
- Which kind of cookie is the most popular? _____
- Which kind of cookie is the least popular? _____
- How many people like oatmeal raisin cookies the best? _____
- How many people like chocolate chip cookies the best? _____
- How many more people prefer oatmeal raisin cookies than peanut butter cookies? _____
- How many more people prefer sugar cookies than gingerbread cookies? _____
- Altogether, how many people like chocolate chip, oatmeal raisin, and sugar cookies? _____
- In all, how many people were asked about their favorite kind of cookie? _____

x = 1 Grade 3 student

[illegible]

Eight "Interpret the Line Plot" activities.

Eight "Create a Tally Chart and Bar Graph" activities.



Name: _____

Create a Tally Chart and Bar Graph -

Count the types of fruit below. (Shade or cross out each piece of fruit as you count it). Record your data in the tally chart.

Tally Chart:

watermelon
pear
pineapple

Name: _____

Create a Tally Chart and Bar Graph - page 2

Complete the Tasks:

1. Transfer the data from the tally chart to the bar graph. Each square represents 2.
2. Give the bar graph a title. Write the title on the line at the top of the graph.
3. Write 5 things that you know by looking at this bar graph.
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____

Name: _____

Create a Tally Chart and Bar Graph - page 1

Complete the Tasks:

1. Transfer the data from the tally chart to the bar graph. Each square represents 3.
2. Give the bar graph a title. Write the title on the line at the top of the graph.
3. Write 5 things that you know by looking at this bar graph.
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____

Name: _____

Create a Tally Chart and Bar Graph - page 1

Count the types of vegetables below. (Shade or cross out each vegetable as you count it). Record your data in the tally chart.

Tally Chart:

potato
peas
corn
broccoli

Name: _____

Collecting and Graphing Data - page 1

Complete the Tasks:

1. Roll a die 20 times. Use the tally chart below to collect data about the numbers that are rolled.
2. Transfer the data from the tally chart to the bar graph. Each square represents 1.

Keep track of your total rolls here: _____

Name: _____

Collecting and Graphing Data - page 2

Transfer the data from the tally chart and bar graph to this line plot.

Numbers Rolled Using a Die

Now use the tally chart, bar graph and line plot to interpret the data that you collected. Write 5 things that you can conclude by looking at the graphs. Try to use keywords such as "more than," "less than," and "altogether."

- a) _____
- b) _____
- c) _____
- d) _____

Name: _____

Collecting and Graphing Data - page 2

Transfer the data from the tally chart and bar graph to this line plot.

Favorite Sports of the People in My Class

Now use the tally chart, bar graph and line plot to interpret the data that you collected. Write 5 things that you can conclude by looking at the graphs. Try to use keywords such as "more than," "less than," and "altogether."

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

Name: _____

Collecting and Graphing Data - page 1

Complete the Tasks:

1. Transfer the data from the tally chart to the bar graph. Each square represents 1 person/people.
2. Transfer the data from the tally chart to this bar graph. Each square represents 1 person/people.

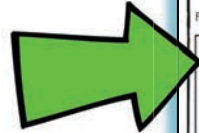
Favorite Sports of the People in My Class



Eight "Collecting and Graphing Data" activities.

PLUS:

Blank graphing templates...



My Graph About _____ (page 1)

Name: _____

Plan Your Data Collection:

1. What data will you collect? _____
2. Where/how will you collect your data? _____
3. What will the title of your graph be? _____
4. Make a prediction about your data collection. _____

First, organize your data using a line plot:

Title: _____

My Graph About _____

Now trace graph (What the squares

My Graph About _____ (page 1)

Name: _____

First, organize your data using a tally chart

Plan Your Data Collection:

1. What data will you collect? _____

2. Where/how will you collect your data? _____

_____ (page 2)

Name: _____

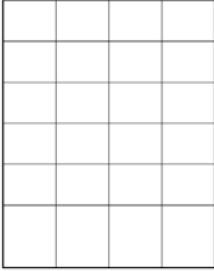
Now transfer the data from the tally chart to this bar graph (Write each category name in the bottom row. Shade the squares above # to create each bar). How many will each square represent? _____

Give the bar graph a title. Write the title on the line at the top.

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My Graph About _____ (page 2)

Now transfer the data from the tally chart to this bar graph (Write each category name in the bottom row. Shade the squares above it to create each bar). How many will each square represent? _____



Give the bar graph a title. Write the title on the line at the top of the graph. Label the side and bottom of the bar graph to tell the type of data that is being shown.

Write 4 things that you can conclude about your data collection by looking at this bar graph.

- _____
- _____
- _____
- _____

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Answer Key

Page 16: Favorite Season

- 1 5
- 2 8
- 3 3
- 4 10
- 5 7
- 6 3
- 7 summer
- 8 writer
- 9 10
- 10 24

You could add the totals in each column, or count the total number of full squares and multiply by 2.

Page 17: Favorite Drink of Grade 3 Students

- 1 8
- 2 8
- 3 4
- 4 2
- 5 4
- 6 2
- 7 lemonade and milk
- 8 hot chocolate
- 9 10
- 10 24

Page 18: Favorite Colors

- 1 blue
- 2 red
- 3 6
- 4 12
- 5 3
- 6 6

30. Add up each column or add all the crayons and multiply by 3

8 4

Page 20: Number of Boys and Girls in Class

- 1 16
- 2 18
- 3 27
- 4 5
- 5 1 person, A full person represents 2 girls, so a half person represents 1 girl
- 6 22
- 7 Boys
- 8 Answers will vary. Students can be as large as take full bar, represent 1.



Page 21: Number of Puffins Sold


- 1 75
- 2 40
- 3 60
- 4 45
- 5 35
- 6 290
- 7 Tuesday and Friday

Answer Key

C

Tally Chart:

 watermelon	 pear
---	---

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[illegible]

...and answer keys.

This **Skills Pack** includes 42 graphing activities in all that will reinforce bar graphs, picture graphs, tally charts and line plots. The bar graphs and picture graphs involve many-to-one correspondence. The tally charts and line plots involve one-to-one correspondence. Students will also work on converting data from one-to-one correspondence to many-to-one correspondence.

Enjoy!

