

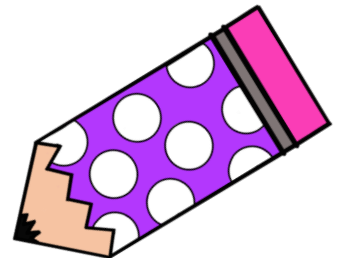
4TH grade

GRAPHS

NOTEBOOK PAGES & EXIT SLIPS



Frequency Table
Stem-and-Leaf
Dot Plot



TEKS 4.9A, 4.9B

PROGRESSION OF **DATA ANALYSIS** TEKS

	2nd	3rd	4th	5th
Bar Graph	X	X		X
Interval:	1 or more	1 or more		1 or more
Pictograph	X	X		
Interval:	1 or more	1 or more		
Double Bar Graph				X
Frequency Table		X	X	X
Dot Plot		X	X	X
Data sets include:		Whole Numbers	Whole Numbers, Fractions & Decimals	Whole Numbers, Fractions & Decimals
Stem-and-Leaf Plot			X	X
Data sets include:			Whole Numbers, Fractions & Decimals	Whole Numbers, Fractions & Decimals
Scatter Plot				X

One notable observation is that the 4th grade TEKS do not list bar graphs among the graphs 4th grade students are expected to use. It is perplexing to me that this graph is omitted from the TEKS for grade 4, but then picked back up in grade 5.

Teaching Notes

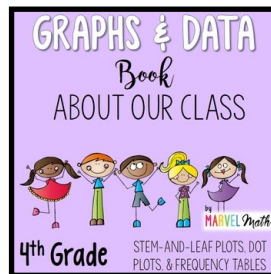
The notebook pages are designed to help you introduce the different types of graphs to your students. The student page has blank data and space to fill in graph details. The page that follows each student page has the graph details and an example of how the data should be completed in the graph. I didn't put the word "key" on it, because I wanted to leave you the option of using those pages in a reference book for students.

There are 4 exit slips in all, covering dot plots and stem-and-leaf plots, for each of the 4th grade graphing TEKS (4.9A & 4.9B). I made keys for the exit slips and placed a "small group" box next to each one to record the names of students who need re-teach in a small group.

This is a Texas-specific resource, so only the graphs named in your grade level TEKS are included. You don't need to worry about spending your precious teaching time on graphs that other states require, or sifting through resources to find exactly the types of graphs your students need. This is TEKS aligned, with STAAR in mind. :)

It is important for students to understand how the graphs are similar and different from one another. Use the graphic organizer that follows the graphing notebook pages to review the graphs and develop an understanding of each type of graph in relation to the others.

Data collection and graphing can be one of your students' favorite units for the year. Students naturally want to know about one another and love to share responses to data collection questions. Check out the very popular class data book I have created:



Have fun graphing!

Melissa

Follow my blog and connect with me at:

MARVEL Math.com



Types of GRAPHS

Data results from a survey of the number of laps run today:

3, 5, 5, 4, 4, 4, 3, 5, 4

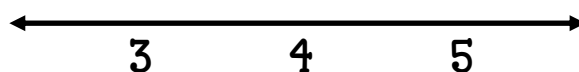
Place the data in the frequency table and use it to create a dot plot.

Frequency Table

Number of Laps Run			
Frequency			

Dot Plot

Number of Laps Run



Stem-and-Leaf Plot

Estimation Jar Guesses

Stem	Leaf
Key: 5 2 = 52	

Estimation Jar Guesses:

52, 52, 56, 61, 63, 64, 68, 68, 73, 74



Types of GRAPHS

Data results from a survey of the number of laps run today:

3, 5, 5, 4, 4, 4, 3, 5, 4

Place the data in the frequency table and use it to create a dot plot.

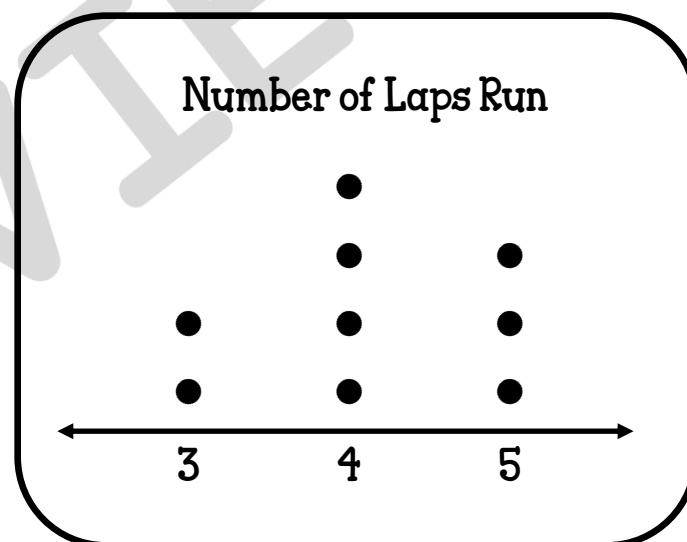
Frequency Table

Raw data is organized in a table that shows the number of times something occurs.

Number of Laps Run	3	4	5
Frequency	2	4	3

Dot Plot

Data is shown along a number line. Dots are used to show the number of times something occurs. This type of graph displays 1 set of data and helps us see how the data is distributed.



Stem-and-Leaf Plot

Data is cut into stems and leaves based on place value. This type of graph shows the distribution of one set of data using the numbers themselves.

Estimation Jar Guesses				
Stem	Leaf			
5	2	2	6	
6	1	3	4	8 8
7	3	4		
Key: 5 2 = 52				

Estimation Jar Guesses:

52, 52, 56, 61, 63, 64, 68, 68, 73, 74

DOT PLOTS with Fractions



TEKS: 4.9A

Frequency Table

Number of Laps Run	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4
Tally					
Frequency					

Raw Data of Laps Run:

$3\frac{1}{2}$, 4, $3\frac{3}{4}$, 3, $3\frac{1}{2}$, $3\frac{3}{4}$, $3\frac{1}{2}$,
 $3\frac{3}{4}$, 4, $3\frac{1}{2}$, $3\frac{3}{4}$

Place the data in the frequency table
& dot plot.

Dot Plot

Number of Laps Run

3

$3\frac{1}{4}$

$3\frac{1}{2}$

$3\frac{3}{4}$

4



DOT PLOTS with Fractions

Frequency Table

Raw data is organized in a table that shows the number of times something occurs.

Raw Data of Laps Run:

$3\frac{1}{2}$, 4, $3\frac{1}{4}$, 3, $3\frac{1}{2}$, $3\frac{3}{4}$,

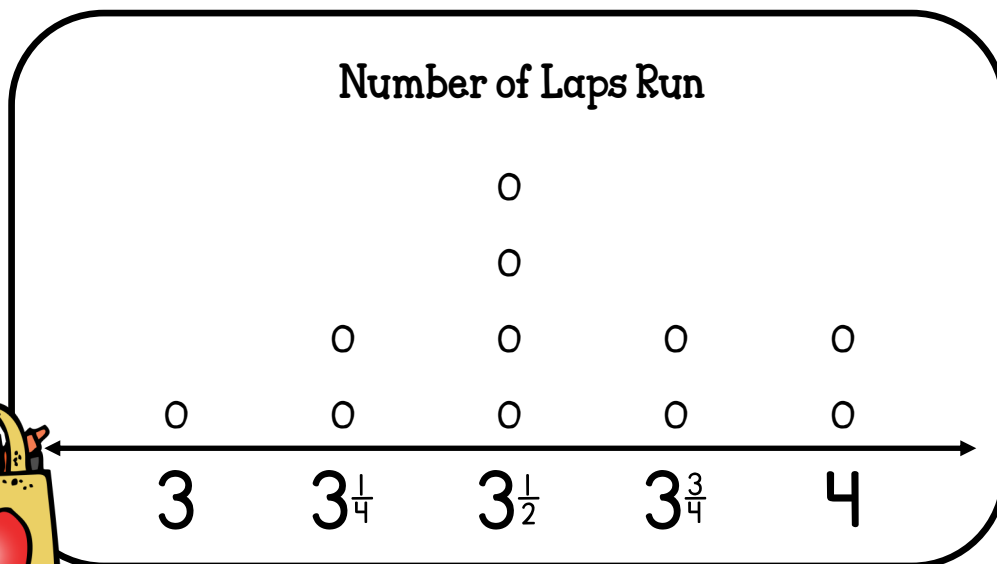
$3\frac{1}{2}$, $3\frac{1}{4}$, 4, $3\frac{1}{2}$, $3\frac{3}{4}$

Place the data in the frequency table and dot plot.

Number of Laps Run	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4
Tally					
Frequency	1	2	4	2	2

Dot Plot

Data is shown along a number line. Dots are used to show the number of times something occurs. This graph displays 1 set of data and helps you see how the data is distributed.



Name _____

Stem-and-Leaf Plot 4.9A

Complete the stem-and-leaf plot using
the following data:

27, 31, 25, 28, 36, 36, 12

Student Tardies	
Stem	Leaf
Key: 5 2 = 52	

Name _____

Stem-and-Leaf Plot 4.9A

Complete the stem-and-leaf plot using
the following data:

27, 31, 25, 28, 36, 36, 12

Student Tardies	
Stem	Leaf
Key: 5 2 = 52	

Name _____

Stem-and-Leaf Plot 4.9A

Complete the stem-and-leaf plot using
the following data:

27, 31, 25, 28, 36, 36, 12

Student Tardies	
Stem	Leaf
Key: 5 2 = 52	

Name _____

Stem-and-Leaf Plot 4.9A

Complete the stem-and-leaf plot using
the following data:

27, 31, 25, 28, 36, 36, 12

Student Tardies	
Stem	Leaf
Key: 5 2 = 52	

Name _____

Stem-and-Leaf Plot 4.9B

Madeline recorded the number of minutes she practiced piano this week on the stem-and-leaf plot below.

Minutes of Piano Practice		
Stem	Leaf	
1	5	7
2	0	5 5
3	2	
Key: $1 5 = 15$		

What is the total number of minutes she practiced piano this week?

Name _____

Stem-and-Leaf Plot 4.9B

Madeline recorded the number of minutes she practiced piano this week on the stem-and-leaf plot below.

Minutes of Piano Practice		
Stem	Leaf	
1	5	7
2	0	5 5
3	2	
Key: $1 5 = 15$		

What is the total number of minutes she practiced piano this week?

Name _____

Stem-and-Leaf Plot 4.9B

Madeline recorded the number of minutes she practiced piano this week on the stem-and-leaf plot below.

Minutes of Piano Practice		
Stem	Leaf	
1	5	7
2	0	5 5
3	2	
Key: $1 5 = 15$		

What is the total number of minutes she practiced piano this week?

Name _____

Stem-and-Leaf Plot 4.9B

Madeline recorded the number of minutes she practiced piano this week on the stem-and-leaf plot below.

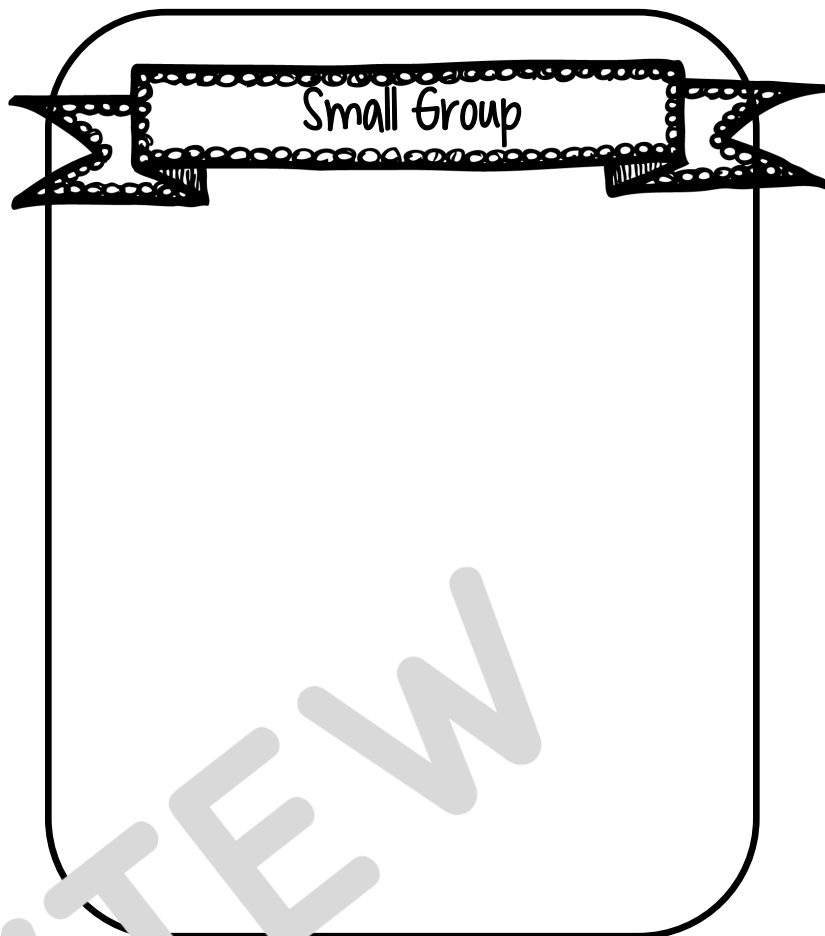
Minutes of Piano Practice		
Stem	Leaf	
1	5	7
2	0	5 5
3	2	
Key: $1 5 = 15$		

What is the total number of minutes she practiced piano this week?

Complete the stem-and-leaf plot using the following data:

27, 31, 25, 28, 36, 36, 12

Student Tardies	
Stem	Leaf
1	2
2	5 7 8
3	1 6 6
Key: 5 2 = 52	



Madeline recorded the number of minutes she practiced piano this week on the stem-and-leaf plot below.

Minutes of Piano Practice	
Stem	Leaf
1	5 7
2	0 5 5
3	2
Key: 1 5 = 15	

What is the total number of minutes she practiced piano this week?

134 minutes

