

NOT SO WIMPY

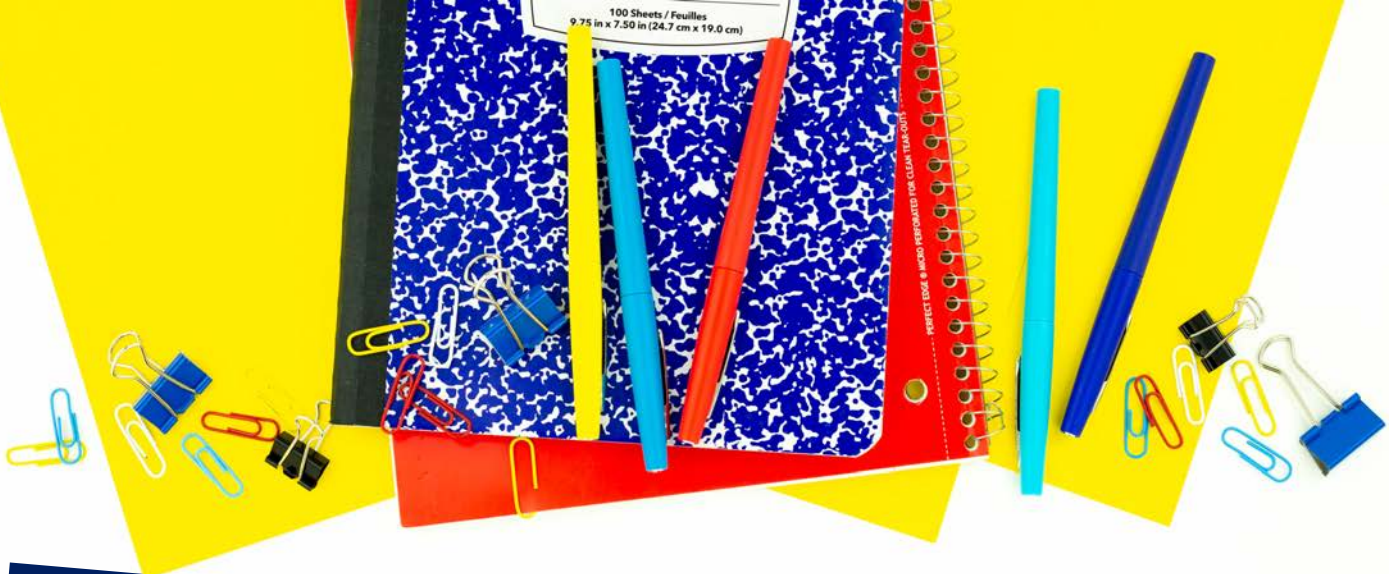
UNIT 9:

DATA

3RD GRADE MATH CURRICULUM

10 DAYS OF LESSON PLANS,
POWERPOINTS, PROBLEM SETS,
EXIT TICKETS, ASSESSMENTS,
GAMES, TASK CARDS, PROJECT-
BASED LEARNING & MORE!





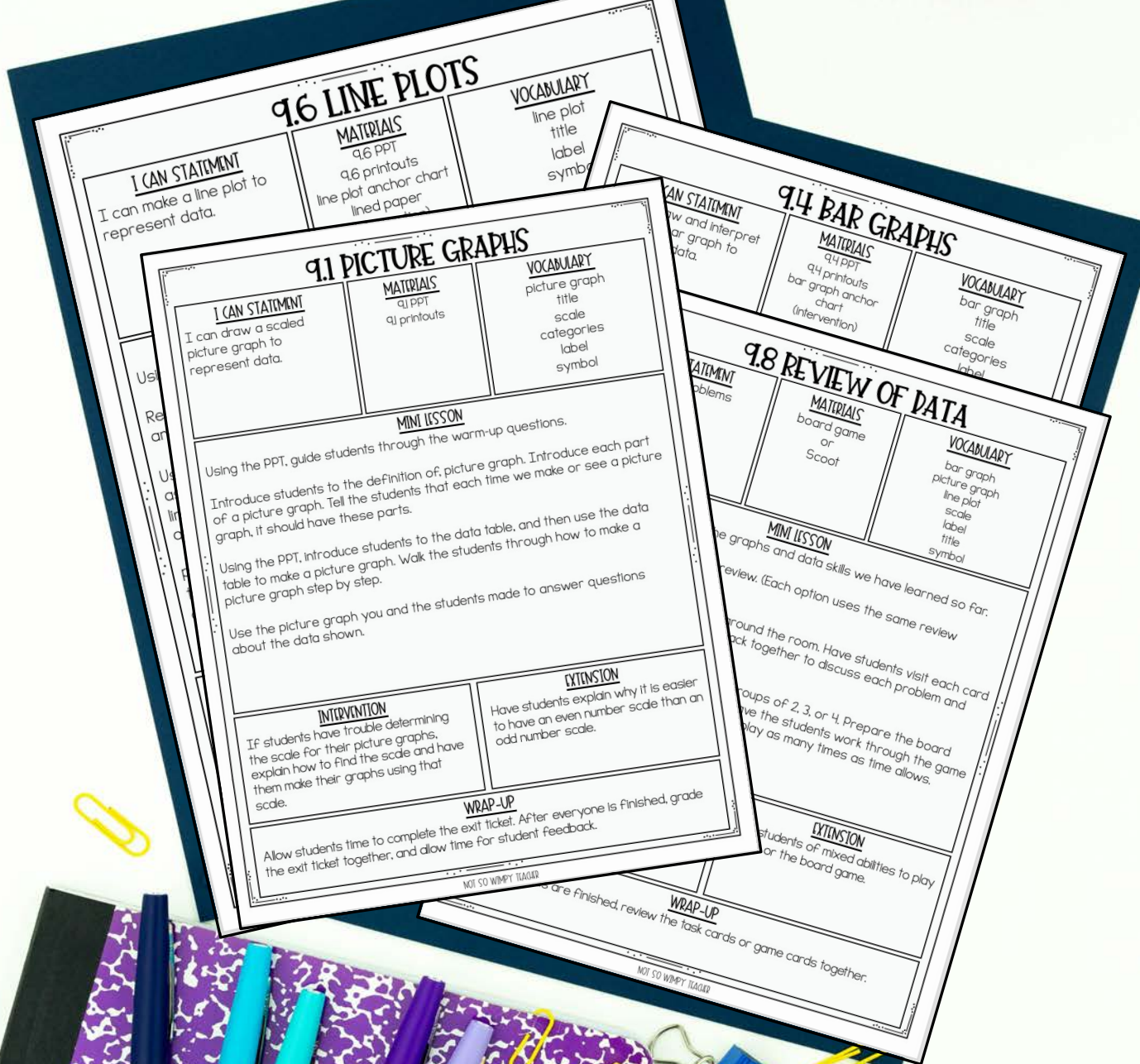
UNIT 9: DATA at a glance

Day 1 Pre-Assessment and Picture Graphs	Day 2 Picture Graphs	Day 3 Bar Graphs	Day 4 Bar Graphs	Day 5 Line Plots
Day 6 Line Plots	Day 7 Line Plots	Day 8 Review Day	Day 9 PBL Activity	Day 10 Assessment

THIS UNIT COVERS THE FOLLOWING COMMON CORE MATH STANDARDS: 3.MD.B.3 and 3.MD.B.4

Notes:

Includes a pacing guide to see all
four weeks at a glance



INCLUDES 10 DAYS OF WHOLE GROUP LESSON PLANS!

9.6 MEET THE TEACHER

MATERIALS FOR TEACHER: data tables, whiteboard, marker, eraser

MATERIALS FOR STUDENTS: pencils, erasers, journals

ACTIVITY: Prep Cut out the data tables for each group. From when the students arrive to meet the teacher, tell them they are going to practice using data tables to make line plots.

Use the line plots labeled for each group. Do the line plots together. Talk about how to label, title, and cross the line plot. Remind students that each line plot should be the same size as they plot them.

Allow students to make the second line plot on their journals. When all students are finished, check their work.

When students finish each line plot, ask them to write a question about the data.

SHOELACE LENGTHS

- How many shoelaces are longer than 9 inches?
- What was the most frequent shoe length?
- How many shoelaces were measured?

CRAYON LENGTHS

- How many crayons are longer than 7 1/2 inches?
- How many crayons are 7 1/2 inches long?
- How many crayons were measured?

NOTES:

9.2 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser, data table sheets

MATERIALS FOR STUDENTS: journals, pencils, erasers

ACTIVITY: Use the data tables for each group to make a picture graph displaying the information. Make the first picture graph together, and then have students make the next one on their own. The data tables are labeled "Approaching," "On Track," and "Mastered." The tables vary by the difficulty of determining the scale.

Focus the discussion on how to determine the scale for each data table. Once the graphs are made, use the questions below with students.

FAVORITE SNOW CONE FLAVOR QUESTIONS

- Which flavor is the most popular?
- Which flavor is the least popular?
- How many more people chose blue raspberry than grape?
- How many people chose cherry and green apple?
- How many more people chose cherry and blue raspberry than grape and green apple?
- How many people participated in this survey altogether?

FAVORITE SPORT QUESTIONS

- Which sport is the most popular?
- Which sport is the least popular?
- How many more votes did basketball get than golf?
- How many more votes did basketball and football get than soccer and golf?
- How many people participated in this survey altogether?

NOTES:



INCLUDES SMALL GROUP/ MEET WITH TEACHER LESSON PLANS

Name: _____

Unit 9 Lesson 6 Problem Set

Directions: Use the data table to make a line plot.

Name: _____

Unit 9 Lesson 7 Homework

Directions: Use the data table to make a line plot.

Name: _____

Unit 9 Lesson 1 Problem Set

Directions: Use the data table to fill in the picture graph, and use the data to answer the questions.

Favorite Fall Activity

Favorite Fall Activity		Carving Pumpkins	
Carving Pumpkins	9	Apple Bobbing	
Apple Bobbing	2	Corn Maze	
Corn Maze	6		

- How many more people chose carving pumpkins than apple bobbing?
- How many more people chose carving pumpkins than corn mazes together?

Directions: Use the data table to make a picture graph to answer the questions.

Favorite Fall Drink	
Apple Cider	25
Hot Chocolate	30
Pumpkin Spice	20

- How many people chose hot chocolate and apple cider?
- How many more people chose apple cider and hot chocolate?

Name: _____

Unit 9 Lesson 5 Homework

Directions: Use the data table to finish the line plot.

Lengths of Crayons in the Box (in.)

Lengths of Crayons in the Box (in.)	
4 1/8	4
4 1/4	4
4 3/4	5
5 1/4	4
5 3/4	4
6 1/4	4

How many crayons were 4 inches or greater? _____

How many crayons were less than 4 inches? _____

How many crayons were measured? _____

Directions: Use the data table to make a line plot.

Name: _____

Unit 9 Lesson 1 Exit Ticket

Directions: Use the data table to fill in the picture graph, and use the data to answer the questions.

Types of Nuts in the Trail Mix

Name: _____

Unit 9 Lesson 7 Exit Ticket

Directions: Use the data table to make a line plot, and use the data to answer the questions.

Sil and Reach Results (in.)	
1 1/4	1 1/2
1 3/4	2
2 1/4	2 1/2
2 3/4	3

Name: _____

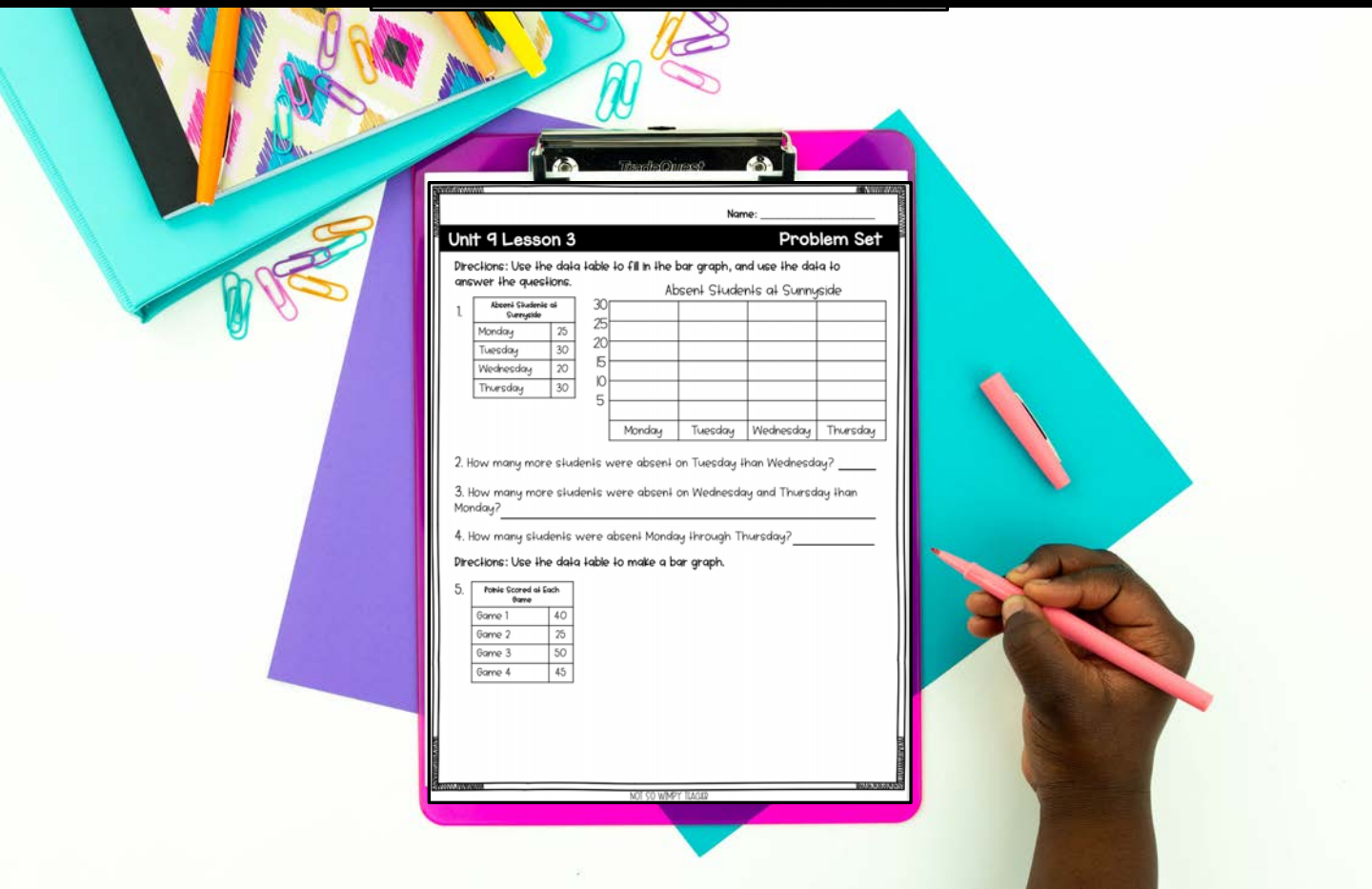
Unit 9 Lesson 4 Exit Ticket

Directions: Use the data table to fill in the bar graph, and use the data to answer the questions.

Students' Pets

Students' Pets	
Cats	25
Dogs	30

INCLUDES PROBLEM SETS, HOMEWORK, AND EXIT TICKETS FOR EACH DAY



9.2 Picture Graphs

I can draw and interpret a scaled picture graph.

Fact Fluency

Build 10!

number can you add to the number below to make ten?

3

Picture Graphs

Vocabulary:

Picture graph: a graph used to display information that uses images or symbols to represent data.



Picture Graphs

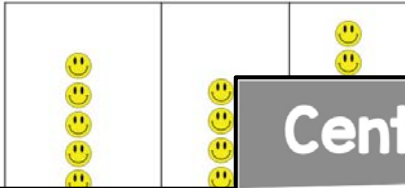
Use the data table to make a picture graph.

Picture Graphs

Use the data table to make a picture graph.

Students at Valleyview Primary

Students at Valleyview Primary	
Kindergarten	25
1st Grade	20
2nd Grade	30



Pets at Home

Cat	
Dog	
Fish	
Bird	

Centers

	MON.	TUES.	WED.	THURS.
GROUP 1	Meet the Teacher	Independent	Meet the Teacher	Independent
	Technology	Math Facts	Technology	Math Facts
GROUP 2	Independent	Meet the Teacher	Independent	Meet the Teacher
	Math Facts	Technology	Math Facts	Technology
GROUP 3	Technology	Math Facts	Technology	Math Facts
	Meet the Teacher	Independent	Meet the Teacher	Independent
GROUP 4	Math Facts	Technology	Math Facts	Technology
	Independent	Meet the Teacher	Independent	Meet the Teacher

NOT SO WIMPY TEACHER

Exit Ticket

Directions: Use the data table to fill in the picture graph, and use the data to

Favorite School Subject

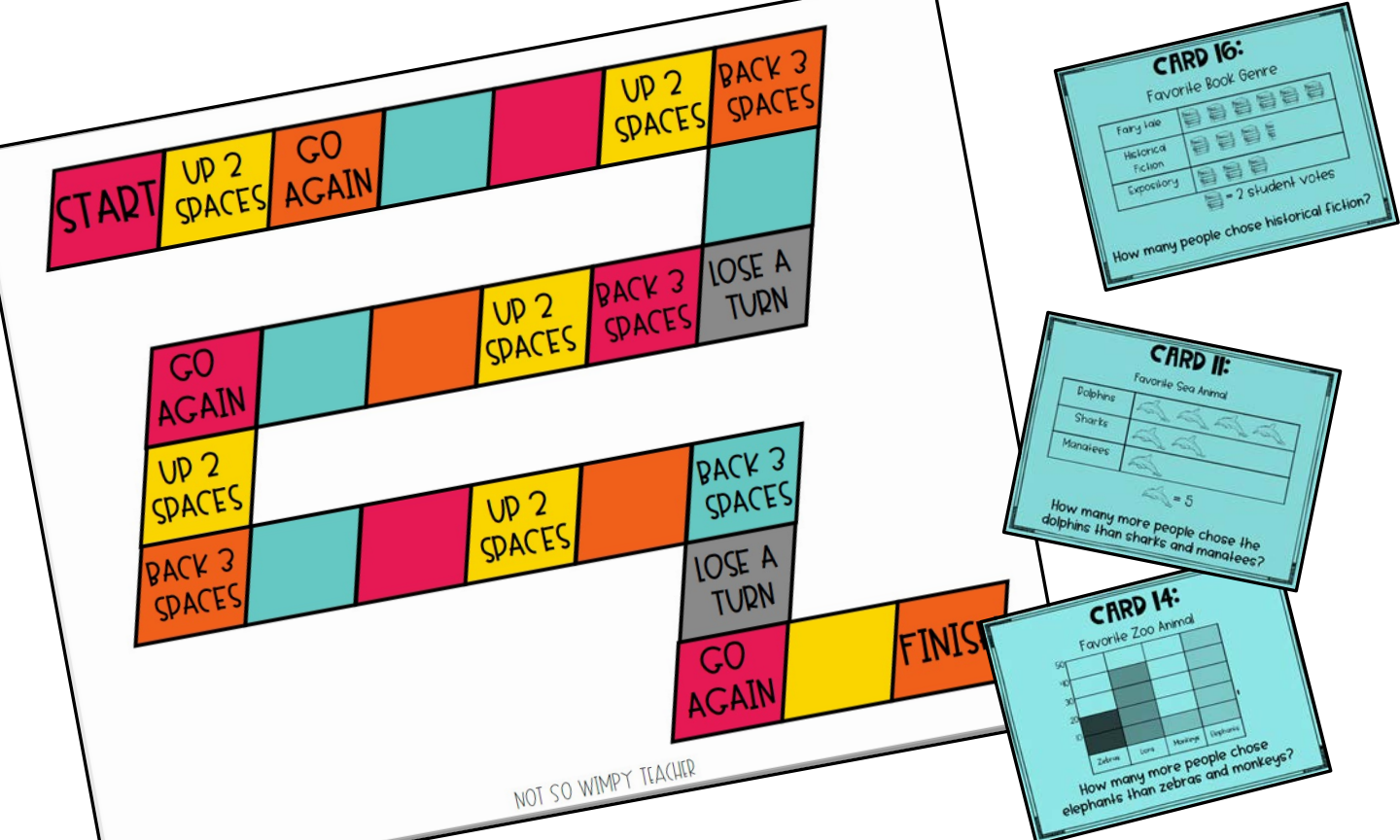
Favorite School Subject		Math	
Math	35		
Reading	20		
Science	15		

- How many more people chose math than science?

- How many more people chose reading and math than science?

- How many people participated in the survey?

INCLUDES DAILY POWERPOINTS FOR TEACHING MATH SKILLS.



a game and scoot are INCLUDED FOR THE END OF UNIT REVIEW



INCLUDES PRE- AND POST-ASSESSMENTS, ANSWER KEYS AND A RUBRIC FOR TRACKING STUDENT PROGRESS

Unit 9 Data

Directions: Label the parts on the graph with a symbol, and label.

Students Eye

2. _____

3. _____

Unit 9 Data

Directions: Use the data table to create a line plot.

Vegetables in the Garden			
Green Beans	50		
Potatoes	75		

Unit 9 Data Assessment

Directions: Use the data table to create a line plot.

32. Lengths of Rope (in.)

32 1/2	33	33	33 1/4
32 1/4	33 1/2	32	33 3/4
22 3/4	22 3/4	22 3/4	22

Unit 9 Data

Directions: Use the line plot to answer the questions.

25. What data is the line plot showing?

26. What was the most frequent length?

27. What was the least frequent length of eraser?

28. How many erasers are shorter than 2 3/4 inches?

29. How many erasers were 3 inches or longer?

30. How many erasers are shorter than 3 1/2 inches? **13 erasers**

31. How many total erasers were measured?

Skill	Labeling a Picture Graph	Interpreting a Picture Graph	Creating a Picture Graph (out of 8 points) title, labels, scale, and symbols	Labeling a Bar Graph	Creating a Bar Graph (out of 8 points) title, labels, scale, and bars	Interpreting a Bar Graph	Interpreting a Line Plot	Creating a Line Plot (out of 8 points) scale, title, and data placed correctly	Determining Scale	TOTAL
Student	1-4	5-11	12	13-16	17	18-24	25-31	32	33-35	
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66
	___/4	___/7	___/8	___/4	___/8	___/7	___/7	___/18	___/3	___/66

Assessment Answer Key

Dogs at the Park

20. How many more hounds were at the park than beagles? **10 more**

21. How many more poodles and great danes were at the park than hounds? **25 more**

22. How many fewer poodles were at the park than hounds? **5 fewer**

23. How many more hounds and great danes were at the park than poodles and beagles? **20 more**

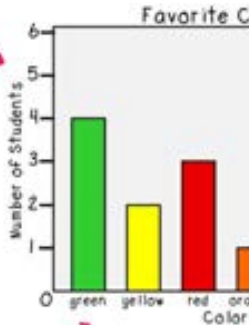
24. How many total dogs were at the park? **90 dogs**



BAR GRAPHS

SCALE

tells what to count by and how many



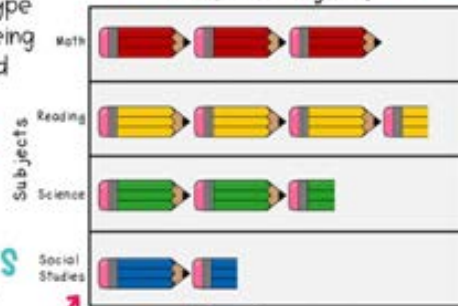
CATEGORIES

shows what each bar stands for

PICTURE GRAPHS

LABEL

tells the type of data being collected



TITLE

describes what the graph is showing

CATEGORIES

shows the choices for the data sample

SYMBOL

represents the amount of data collected

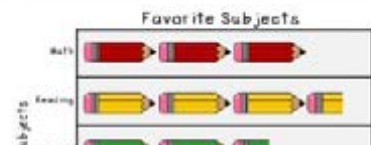
KEY

Tells the value of each symbol on the graph

VOCABULARY CARDS AND ANCHOR CHARTS FOR TEACHER AND STUDENTS TO REFERENCE THROUGHOUT THE UNIT

PICTOGRAPH

used to display information



KEY

displays the value of each



CATEGORIES

show the choices for the data sample

green yellow red orange blue purple

CATEGORIES

PBL ACTIVITY

MEASUREMENT, TIME, & DATA

A CONSTRUCTION-
THEMED LEARNING

3RD GRADE CLASS PROJECT

Your third-grade class has worked so hard this year! For your end of the year class project, you've decided to adopt the

DECIDING ON A PROJECT

Your classmates have voted on which end of the year project they would like to make for the kindergarten class. Look at the data provided to create a scaled picture graph.

Votes	Title
5	Toy Shelf
12	Dollhouse
8	Play Kitchen

PROJECT VOTING DATA

Answer the questions below using your picture graph from the previous page.

- How many total students are represented in the graph?
 $5 + 12 + 8 = 25$ students
- How many fewer students voted for the toy shelf than the dollhouse?
 $12 - 5 = 7$ fewer students
- How many more students voted for the dollhouse or play kitchen instead of the toy shelf?
- What is the least common project choice?
- What is the most common project choice that your class voted on?

a project-based learning for students to review the standards in a fun and engaging way

IT'S BUILDING TIME

Answer the questions below using the building schedule from the previous page.

Now that the supplies have been all sorted out, it's time to get building! Your teacher has created a schedule to show when you will get to work on building the project. Some information is missing from the schedule. Use the information provided to fill in the blanks.

Weekday	Start Working	Stop Working	Elapsed Time
Monday		A. _____	30 minutes
Tuesday		1:55	B. _____
Wednesday			
Thursday			
Friday			

SCREWS LINE PLOT DATA

Answer the questions below using your line plot from the previous page.

SCREWS LINE PLOT

The line plot already shows the data from the screws that did NOT fall out of the bag. You will need to add the screws that fell out of the bag to the line plot.

- Copy the lengths of the screws you measured from the previous page.
- Add your data to the plot below.

Screw Length	A	B	C	D	E	F

BUILDING SUPPLIES SPILL

As you're getting the supplies ready to start building, part of the bag of screws dropped on the floor and the sizes got all mixed up! Use the ruler to determine the lengths of the screws to the nearest quarter inch. Write your measurement on the line.

A. 1 in.

B. 2 in.

C. 1.5 in.

D. 0.5 in.

E. 1.25 in.

9.3 BAR GRAPHS

I CAN STATEMENT

I can draw a scaled bar graph to represent data.

MATERIALS

9.3 PPT
9.3 printouts
bar graph anchor chart
(intervention)

VOCABULARY

bar graph
title
scale
categories
label
bar

MINI LESSON

Using the PPT, guide students through the warm-up question.

Introduce students to the definition of a bar graph. Show students the parts of a bar graph. Tell students that the parts of a bar graph and a picture graph are similar.

Using the PPT, model how to use a data table to make a bar graph. Walk students through each step of making a bar graph. Start with the title, and

Lesson 6

Directions: Use the data table to make a line plot.

8 1/2	9 1/2	9 3/4
9	8 1/2	8 3/4
8 3/4	8	9 1/4
9 1/4	8 1/4	8 1/2
9 1/4	8 1/2	8 3/4
9 1/2	9	8

- How many noodles were 8 1/2 inches or shorter?
- How many noodles were longer than 9 inches?
- How many noodles were measured?

Directions: Use the data table to make a line plot.

4	4 1/2	3 3/4
3 3/4	3 1/2	3
3	4 1/4	4 1/2
4 1/2	3	3 3/4
3 1/2	4 1/2	4 3/4

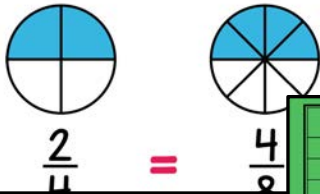
BAR GRAPHS

SCALE
tells what to count by and how many

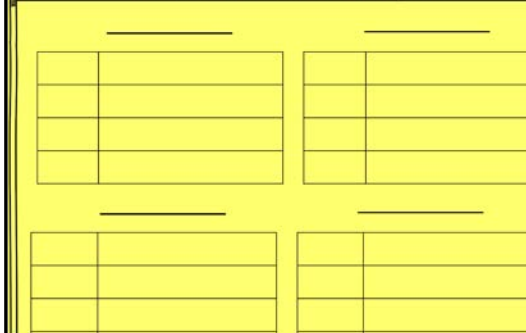
CATEGORIES
shows what each bar stands for

EQUIVALENT FRACTIONS

Equivalent fractions are fractions that represent the same amount.



Blank Picture Graphs



FAVORITE JUICE FLAVOR

Pineapple	10
Orange	40
Apple	45
Cranberry	30

Scale = 10

MOVIE TICKETS SOLD

Thursday	75
Friday	50
Saturday	125
Sunday	100

Scale = 25

COOKIE SALES

Oatmeal Raisin	5
Gingersnap	25
Chocolate Chip	20
Sugar	5

Scale = 5

FAVORITE TYPE OF MUSIC

PICTOGRAPH

used to display information

KEY

displays the value of each

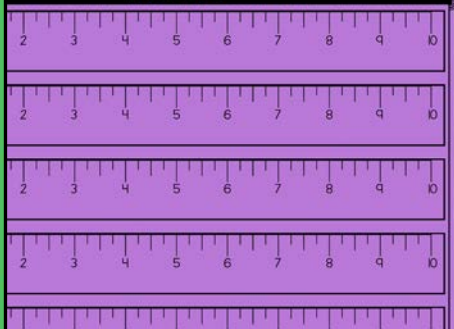
= 2 students

CATEGORIES

green yellow red orange blue purple

CATEGORIES

Rulers



each day of math is fully planned for you with all the tools you'll need!