

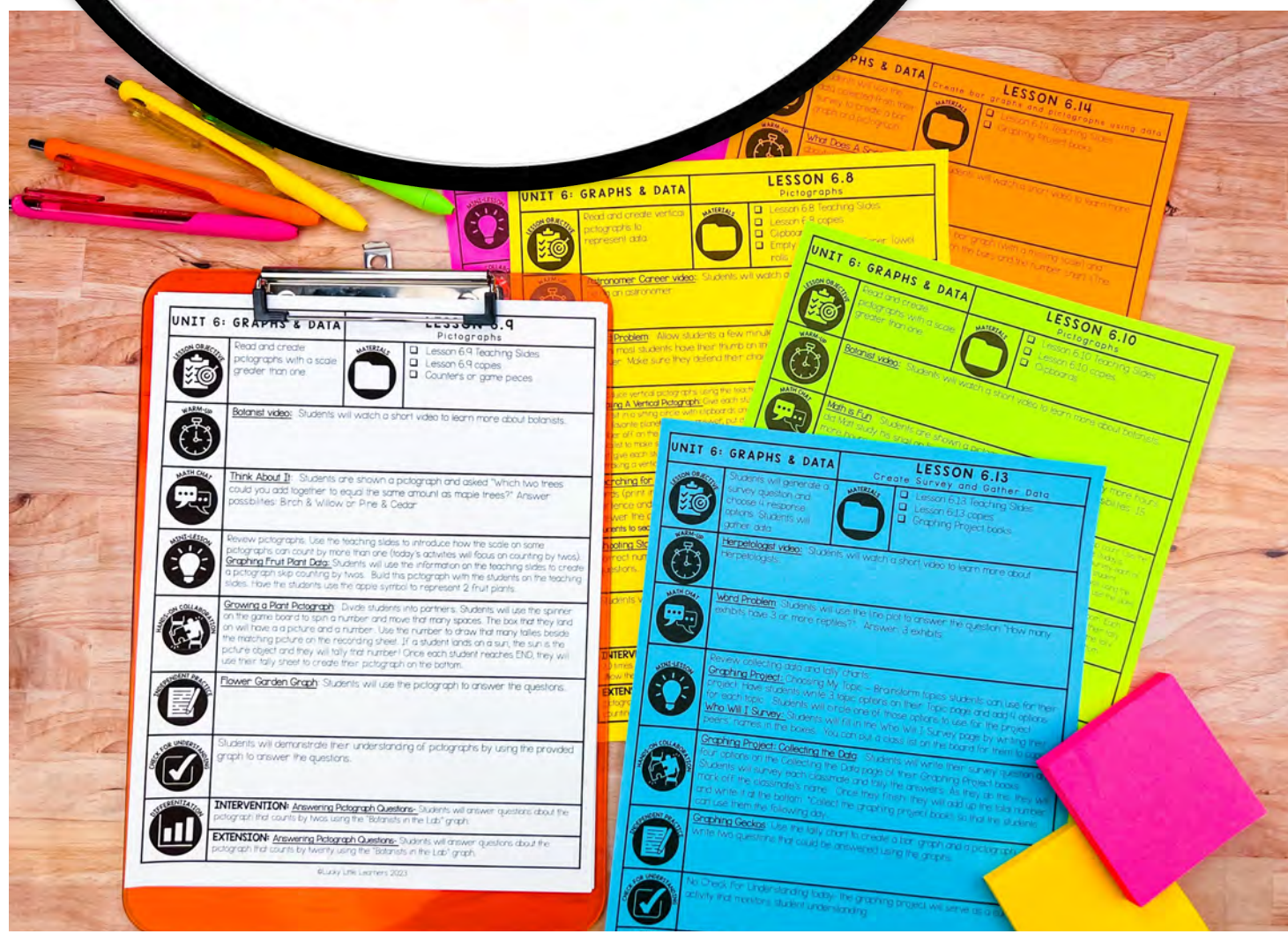
SECOND GRADE

UNIT SIX

GRAPHING & DATA



Lucky to Learn
MATH



Why?

This is the hands-on, standards-aligned, collaborative, and engaging graphing unit you've been looking for! This resource can also be used as a supplement to other math programs.



Is your current math curriculum dull and lifeless?

This unit is so engaging! It has hobby - themed lessons to pique student interest, while also ensuring they master the math.

Looking for resources that are easy to prep?

The lesson plans include icons to help you choose which activities to use during the day, and teaching slides that guide you & your students through the lesson.

Wanting your students to love math?

The math block routine will scaffold and guide students to gain deep levels of understanding, feel successful, and love math!

PERFECT FOR

8. Which color had the least amount of rocks?

Name Rachel

GRAPH-A-GEODE

Directions: Count the geodes in the box and fill in the tally chart. Create a horizontal bar graph to show your data.

GEODES COUNTED	
	### I
	### IIII
	###

5. How many fewer rocks were blue than brown?

Name Elsa

CHECK FOR UNDERSTANDING

Directions: Use the graph to answer the questions.

Vegetable	Tally
corn	### IIII
broccoli	###

Favorite vegetables

MATH BLOCK

Name Zach

DRAWING A BAR GRAPH

Directions: Use the tally chart to create a bar graph. Make sure to label the graph correctly. You will draw rectangle bars for each category.

Month	Tally
JANUARY	###
FEBRUARY	##
MARCH	### IIII
APRIL	### IIII

Name Marcus

READING A BAR GRAPH

Directions: Use the graph to find what to draw on your park scene and how many you will need to have. For example, if the graph shows that I saw 7 birds, I would draw 7 birds in the park scene.

Category	How Many I Saw
CLOUDS	2
BIRDS	7
WHAT I SAW	1
KIDS	4
FLOWERS	3

NUMBER TALKS

BAR GRAPHS

A bar graph shows data using lengths of bars.

FAVORITE SEASON

Season	Number of Student Votes
WINTER	4
SPRING	2
SUMMER	6
FALL	3

Labels: TITLE, LABEL, SCALE, BARS, CATEGORY LABELS.

Name Kurt

OCEAN ZONES GRAPHING

Directions: Create a bar graph using the picture of the ocean zones below. Answer the questions once you have made your graph. Bonus: color your graph to match the ocean zones!

Ocean Zone	Number of Animals
SUNLIGHT ZONE	10
TWILIGHT ZONE	6
MIDNIGHT ZONE	4

Questions: 1. Which zone had the most animals? Sunlight zone. 2. How many more animals did the Twilight zone have than the Midnight zone?

SUPPLEMENTAL PRACTICE

Name Doug

SUBMARINE PROBLEM SOLVING

Directions: Use the Research on a Submarine Trip bar graph to answer the questions. Color the box with the correct answer. Use the answers to color the picture according to the code!

Question	Correct Answer
1. Which color got the most votes?	blue
2. How many students voted for yellow and green?	7 students
3. How many more students voted for red than yellow?	3 more
4. How many students voted for blue?	23 students

Name Joe

CREATING A BAR GRAPH

Directions: Survey your classmates using the Favorite Sea Creature Survey and use the data to make a bar graph!

Sea Creature	Number of Votes
Jellyfish	10
Pufferfish	4
Sea Turtle	3
Shark	1

INTERVENTIONS

WHAT'S INCLUDED?

- Teaching slides
- Lesson plans
- Warm-ups
- Math chats
- Mini lessons
- Collaborations
- Worksheets
- Differentiation
- And so much more!



SKILLS INCLUDED

Aligned to CCSS & TEKS



GRAPHING & DATA UNIT OVERVIEW

BAR GRAPHS

WEEK ONE

- Introduction to bar graphs
- Gathering data
- Vertical bar graphs
- Horizontal bar graphs
- Bar graphs with a scale greater than 1
- Write and answer questions about bar graphs

CC:
2.MD.10

TEKS:
2.10a
2.10b
2.10c
2.10d

PICTOGRAPHS

WEEK TWO

- Introduction to pictographs
- Horizontal pictographs
- Vertical pictographs
- Pictographs with a scale greater than 1
- Write and answer questions about pictographs

CC:
2.MD.10

TEKS:
2.10a
2.10b
2.10c
2.10d

LINE PLOTS & GRAPHING PROJECT

WEEK THREE

- Introduction to line plots
- Reading a line plot
- Creating line plots
- Review of graphs
- Graphing project

CC:
2.MD.9
2.MD.10

TEKS:
2.10a
2.10b
2.10c
2.10d

UNIT MATERIALS

COLLECTING DATA

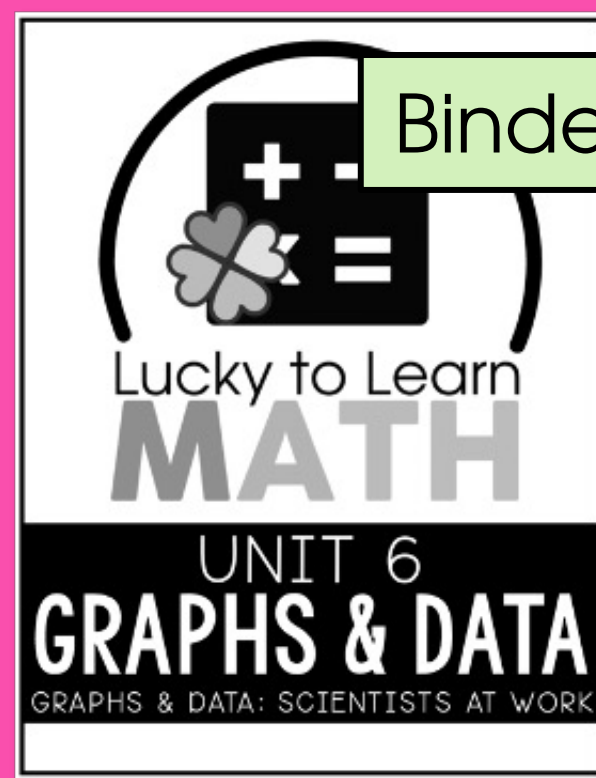
Data is a collection of information gathered by observations, measurements, or research.

- 1. CREATE A SURVEY QUESTION.**
What is your favorite season?
- 2. DECIDE ON A FEW CHOICES.**
Winter, Spring, Summer, and Fall
- 3. SURVEY A GROUP OF PEOPLE.**
I will survey everyone in my class.
It may help to keep a list of everyone you want to survey and mark names off as they vote.
- 4. RECORD RESULTS ON A TALLY CHART**

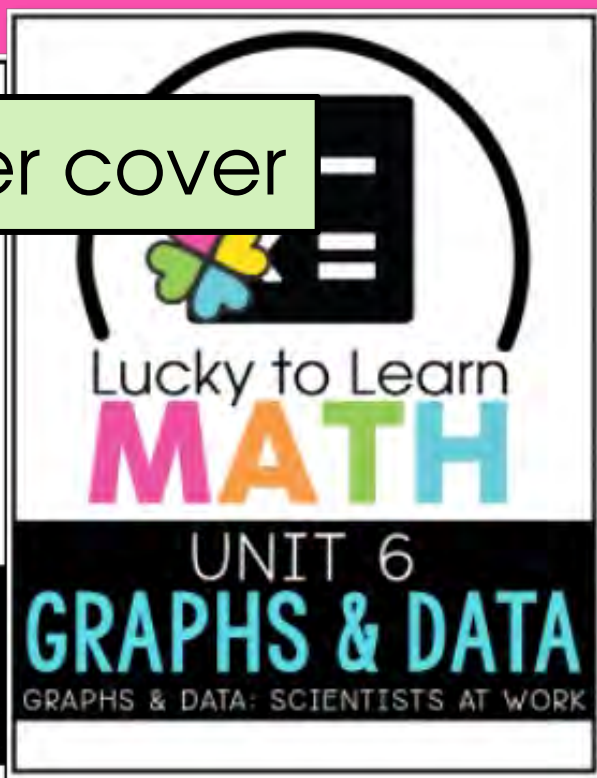
WHAT IS YOUR FAVORITE SEASON?	TALLY
WINTER	
SPRING	
SUMMER	
FALL	

A tally chart uses tally marks to record data. Tally marks are grouped in sets of five.

Anchor charts



Binder cover



MATH CHAT EXPECTATIONS

- 1 BE RESPECTFUL**
Treat everyone in our classroom with respect- including yourself. All answers are valid and we all learn from mistakes.
- 2 THINKING TIME**
When a problem is shown, we won't shout about it yet. We will use silent thinking time to think about the problem on our own.
- 3 TRY YOUR BEST**
Use quiet thinking time to try your best and solve the problem. Do not give up! Our goal is to learn.
- 4 STRATEGIES**
When you think of a way to solve the problem, thumbs-up at your chest. Keep thinking of more ways and raise more fingers for more strategies.
- 5 LET'S CHAT!**
Once we have had plenty of silent thinking time, we will share our strategies with the class and just listen. All answers are shared and talked about by everyone.

MATH CHAT HAND SIGNALS

	I am thinking.
	I have an answer.
	I have more than one strategy.
	I agree!
	I have a different answer or strategy.

Math Chat posters

Name: _____ Date: _____

GRAPHS AND DATA ASSESSMENT

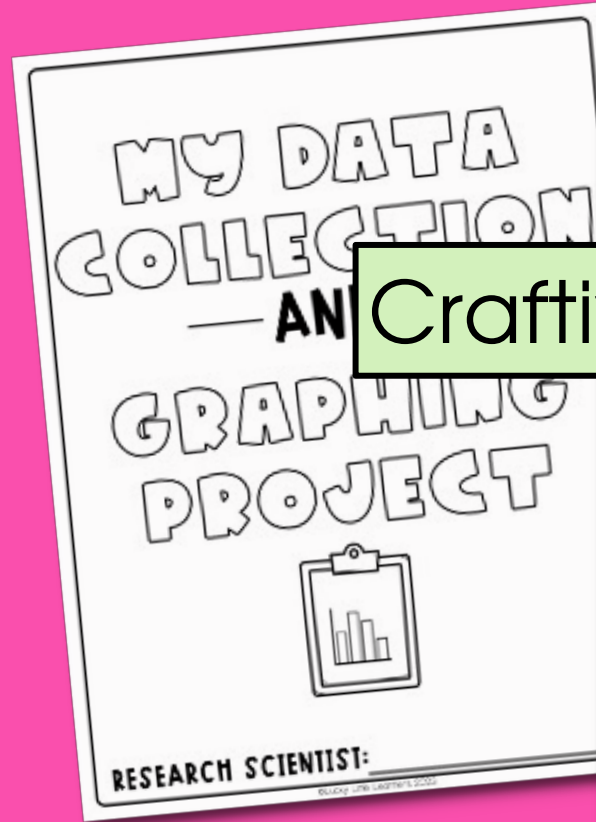
UNIT 6: GRAPHS & DATA

FAVORITE DONUT

FAVORITE ICE CREAM

RELATIONS IN OUR NAMES

Unit assessments



Craftivities

GRAPHING PROJECT: CHOOSING MY TOPIC

LESSON 6.11: GRAPHING PROJECT

OPTIONAL TOPIC IDEAS:

TOPIC IDEA	OPTIMIZING FOR THE TOPIC
FAVORITE CITY	
FAVORITE CAR	
FAVORITE TV SHOW	
FAVORITE SPORT	
FAVORITE HOBBY/ACTIVITY	
FAVORITE DRINK	
FAVORITE RESTAURANT	
FAVORITE CHAIR	
FAVORITE BOOK	
FAVORITE GAME	
FAVORITE SNACK	
FAVORITE DRESS/SHIRT	

bar graph
shows data using the length of bars

data
A collection of information gathered by observations, measurement or research.

vertical
going in an up & down direction

title
tells us what the graph is about

label
tells us what is being counted

scale
tells the amount of data

category
each bar, picture or symbol represents a category

survey
a way to poll a group of people

Vocabulary cards

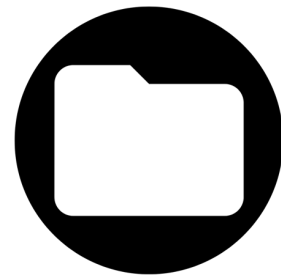
MATH UNIT ICONS

These icons are on each piece of the curriculum to help you stay organized and help students learn the routine!

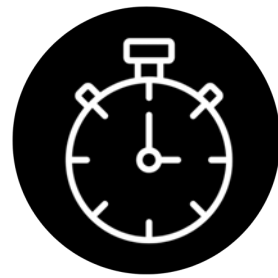
ICON KEY



OBJECTIVE



MATERIALS



WARM UP



MINI LESSON



MATH CHAT



HANDS-ON
COLLABORATION



INDEPENDENT
PRACTICE



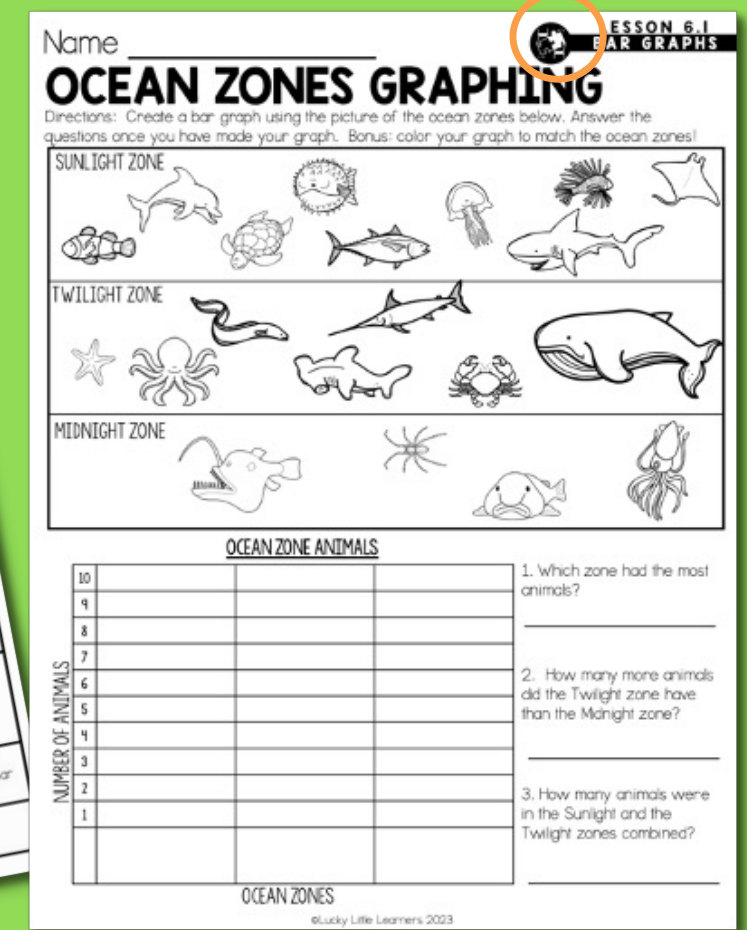
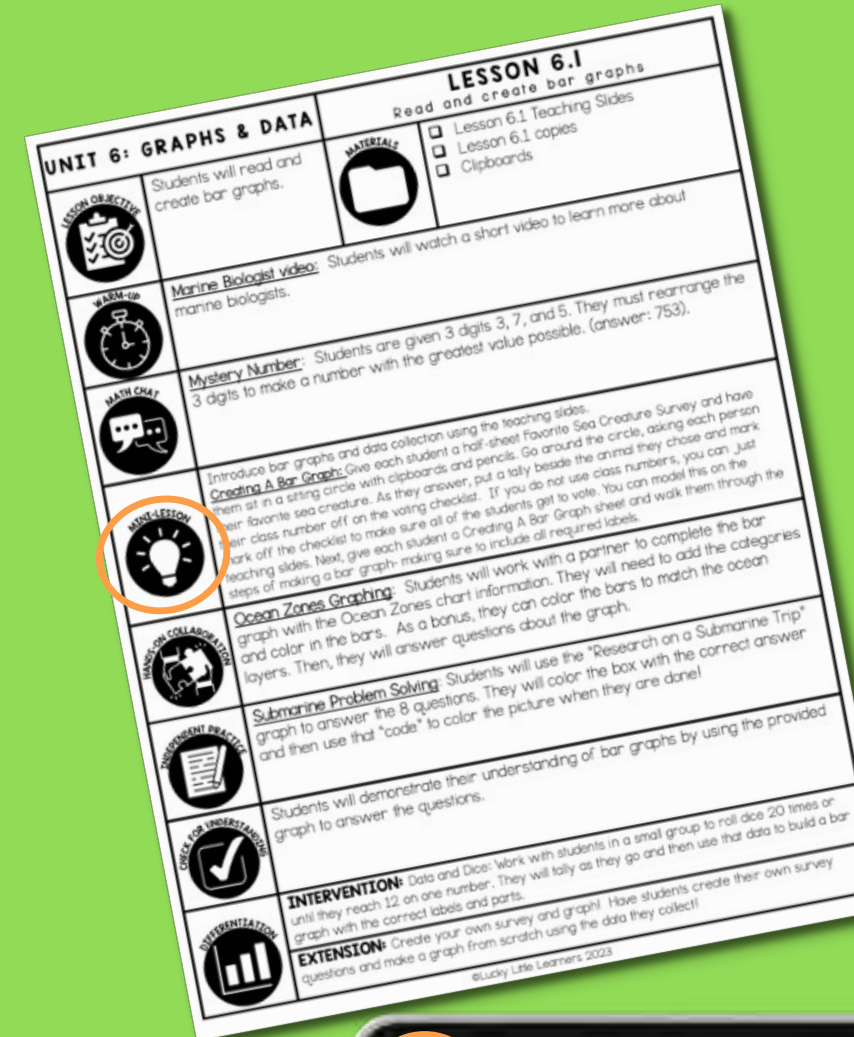
CHECK FOR
UNDERSTANDING



DIFFERENTIATION



BONUS



LESSON PLANS

Clear lesson objective

List of materials

Teaching slides included for each part of the lesson

Math chat (number talk) in each lesson

Quick warm-up in each lesson

Collaborative hands-on tasks

Skill-focused mini lesson

Independent practice

Quick assessments

Materials have matching icons for routine & easy organization

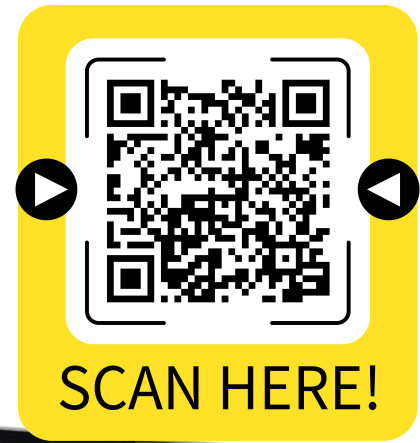
Differentiation options

GRAPHS & DATA		LESSON 6.2 Read and create vertical bar graphs.	
	Students will read and create vertical bar graphs.		<input type="checkbox"/> Lesson 6.2 Teaching Slides <input type="checkbox"/> Lesson 6.2 copies <input type="checkbox"/> Sticky notes (1 per student)
	Audiologist video: Students will watch a short video to learn more about audiologists.		
	True or False?: Students will look at a bar graph and read the statement "4 more people voted for cats than dogs". Students must determine if that statement is true or false. *Answer: The statement is false. 4 fewer people voted for cats than dogs.		
	Review bar graphs and walk students through building a graph for the "Favorite Type of Music" data on the tally chart. For this graph, you will be showing students not only how to label their graph, but showing them how to draw the rectangle bars rather than just coloring in the boxes within a table- they will not be doing this on their own just yet, but we want to continue teaching it. Which Sense Do You Think Is Most Important graph: Make the outline for a bar graph on your teacher whiteboard or on an anchor chart. You will title it "My Most Important Sense" and label it to match the Which Sense Do You Think Is Most Important activity graph. Give each student a sticky note and have them use the notes to create bars on a graph. Once the graph is finished, pass out the activity sheet and have students fill in their own graph using the data made together. Finally, answer the questions at the bottom of the page as a whole group.		
	What's Your Favorite Sound?: Students can work in partners or on their own asking each student their favorite sound of the choices provided. A voting chart is provided for students so that they can mark off class numbers as each person votes, or a class list for them to check off so that they don't survey the same person more than once. Once they finish the survey, students will use the data on the tally chart to make a graph.		
	Audiologist Appointments: Students will answer the questions using the Patient Appointments At The Audiologist graph.		
	Students will demonstrate their understanding of bar graphs by using the provided graph to answer the questions.		
	INTERVENTION: Reading A Bar Graph: Students will look at the Things I Saw At The Park graph and draw a park scene showing the data displayed in the graph.		
	EXTENSION: Drawing A Bar Graph: Students will use the tally chart for pet adoptions to create a graph. They will use the data to draw a bar graph.		

UNIT 6: GRAPHS & DATA		LESSON 6.12 Line Plots	
	Read and create line plots to represent data.		<input type="checkbox"/> Lesson 6.12 Teaching Slides <input type="checkbox"/> Lesson 6.12 copies <input type="checkbox"/> Computers or tablets
	Meteorologist Video: Students will watch a short video to learn more about meteorologists.		
	True or False?: Allow students a few seconds to look at the line and read the sentence. When most students have their thumb on their chest, begin calling on students to share. Tally the true and false votes and have a few students defend their answer. Answer: False		
	Review line plots. Have students turn & talk with a partner about how line plots are different than bar graphs or pictographs. Use the slides to practice some more with line plots. Tornado Data: Pass out the worksheet to students. Work together as a class to complete the pages. Use the tally marks on the slides to help complete the line plot, then answer the questions together.		
	Record Fall Temperatures: Students will work with a partner to color each temperature code. Then tally the numbers of days for each temperature in the chart. They will work together to create a line plot using the data and the answer the questions.		
	Spring Weather Color by Code: Students will use the "Average Spring Temperature line plot to answer the questions. They will color the box with the correct answer and use the answers to color the picture according to code!		
	Students will use the line plot to answer 4 questions.		
	INTERVENTION: Copy Blizzard Data worksheet for students. In a small group, work together to answer the questions about the line plot.		
	EXTENSION: Copy Weather Research worksheet for each student. Students will use a computer or tablet to research weather data in your area for a period of 10 days. They will record their data, create a line plot and write 4 questions about their line plot. If time allows, you could have students share their data and answer each other's questions. Remind students they will need to record a number for their line plot. Examples-- temperatures, inches of snow, etc.		

Weekly Email FREEBIES!

Grab a cup of coffee and take a few minutes with our weekly newsletter created just for teachers like you.



About Lucky Little Learners



Angie Olson has many years of classroom experience teaching grades kindergarten, first, and second grade. She earned her master's degree in mathematics and has presented for a variety of conferences at the national, state, and local levels. Over the years, Angie has employed teachers to help with Lucky Little Learners. She is proud of her talented team who strives to support the teaching community with her. Lucky Little Learners has created over 25,000 resources that are available in the All Access membership. Lucky Little Learners is also a top seller on Teachers Pay Teachers.