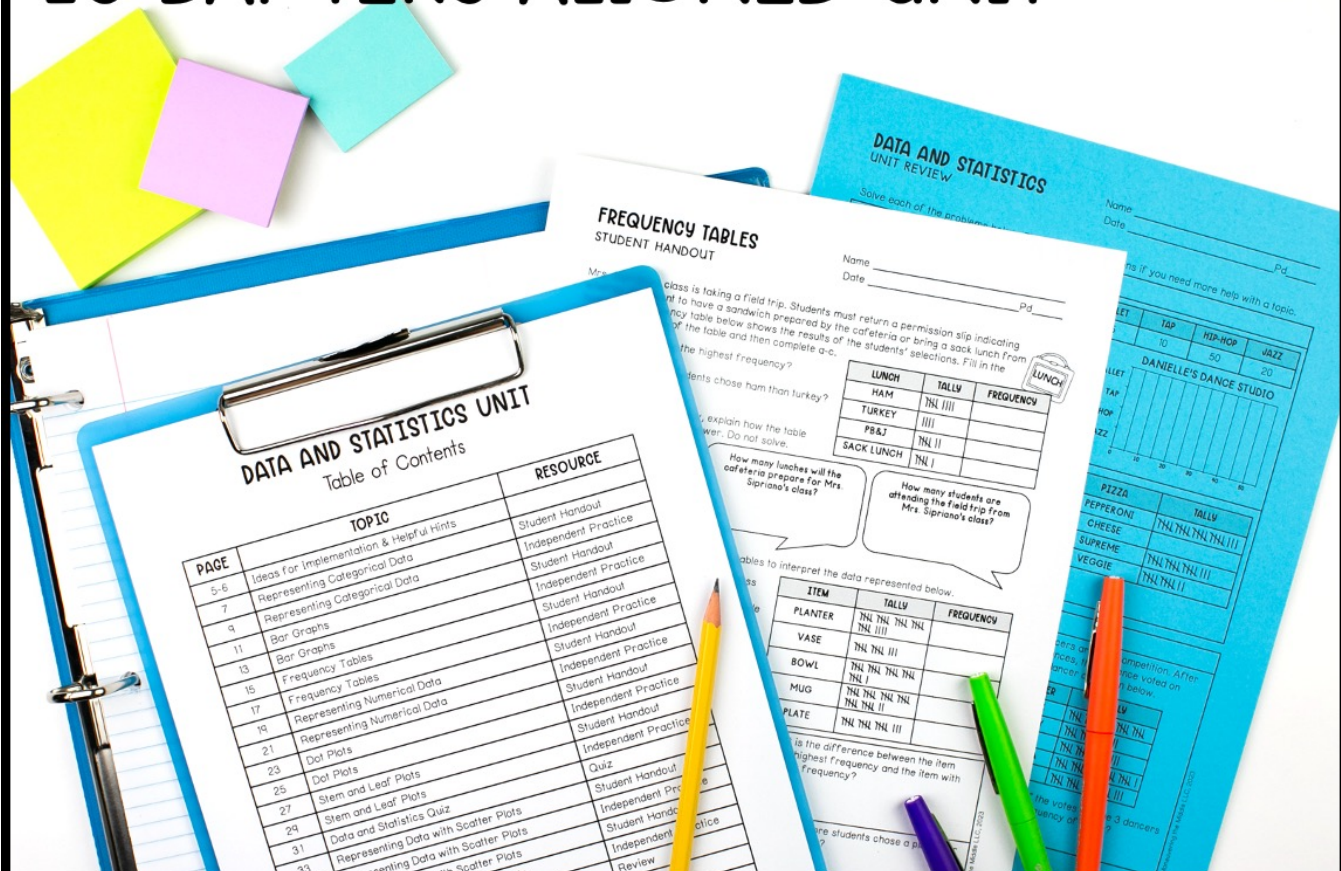


learning focus:

- ✓ represent and solve problems with categorical data using frequency tables and bar graphs
- ✓ represent and solve problems with numerical data using dot plots and stem and leaf plots
- ✓ represent and solve problems with scatter plots

DATA AND STATISTICS UNIT

10 DAY TEKS-ALIGNED UNIT



DATA AND STATISTICS



a 10 day TEKS-aligned unit
TEKS: 5.9A, 5.9B, 5.9C

**ready-to-go, scaffolded
student materials**

DATA AND STATISTICS UNIT

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DATA AND STATISTICS



a 10 day TEKS-aligned unit
TEKS: 5.9A, 5.9B, 5.9C

student friendly + real-world application

scaffolded concepts

BAR GRAPHS

STUDENT HANDOUT

Name _____
Date _____ Pd _____

The 5th grade students at Redwood Elementary recorded their favorite P.E. activities in the bar graph shown at the right. Observe the details of the bar graph and then answer a-d.

- Describe what the horizontal axis represents:
- Describe what the vertical axis represents:

P.E. ACTIVITIES	# OF STUDENTS
KICKBALL	12
STATUES	7
DODGEBALL	12
RELAY RACES	10

a. List the number of students who selected each activity.

kickball: _____ dodgeball: _____
statues: _____ relay races: _____

b. Which activity had the highest frequency? What do you notice about the bar of this category on the graph?

c. How many total students were surveyed? Explain how you determined your answer.

d. Jenna wants to know what fraction of students chose dodgeball as their favorite activity. Explain how she could determine the value.

Apply your understanding of bar graphs to interpret the data represented below.

1. A culinary school in California is hosting a high school cooking contest. Participants get to select the type of entree they will enter in the contest. The results are shown in the bar graph below.

ENTREE SELECTION

a. What is the difference between the number of participants that selected a beef entree and the number of participants that selected a chicken entree?

b. Find the total number of participants who entered the contest.

c. What fraction of the participants selected a fish entree?

FREQUENCY TABLES

INDEPENDENT PRACTICE

Name _____
Date _____ Pd _____

Students in a middle school choir went on a field trip to the local carnival. The frequency table shows the students' favorite activity at the carnival. Fill in the frequency column and use the data to match statements 1-4 below to the correct value. Not all choices will be used.

ACTIVITY	TALLY	FREQUENCY
FERRIS WHEEL		
ROLLER COASTER		
BUMPER CARS		
CARNIVAL BOOTHS		

1. The number of students who preferred the roller coaster or bumper cars. a. 8
b. 61

2. The number of students who preferred the three activities that had the highest frequencies. c. 31
d. 33

3. The difference in the number of students who preferred the activity with the highest frequency and the number of students who preferred the activity with the lowest frequency. e. 60
f. 7

4. The total number of students on the choir field trip. g. 59
h. 49

The frequency table shows the total amount of money each customer spent at an online clothing boutique on Thursday. Fill in the frequency column and use the data to answer #5-7.

TOTAL SPENT (\$)	TALLY	FREQUENCY
0-49		
50-99		
100-149		
150-199		
200-249		

5. How many customers spent more than \$49? 6. What is the difference between the number of customers who spent less than \$150 and the number of customers who spent \$150 or more?

7. The boutique offers free shipping for customers who spend \$100 or more. To find the number of customers who received free shipping, Ellie added the number of customers from the last 2 rows and determined that 45 customers received free shipping. Do you agree? Explain.

application opportunities

DATA AND STATISTICS



a 10 day TEKS-aligned unit
TEKS: 5.9A, 5.9B, 5.9C

unit study guide + assessments

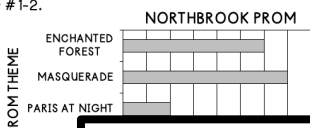
- ✓ quizzes
- ✓ editable unit test

DATA AND STATISTICS QUIZ

Name _____
Date _____ Pd _____

Use the bar graph to answer #1-2.

The student council at Northbrook High School created a survey for the students to decide on a prom theme. The results are shown in the bar graph at the right.



PROM THEME

Answers

- _____
- _____
- _____

DATA AND STATISTICS UNIT REVIEW

Name _____
Date _____ Pd _____

Solve each of the problems below. Be sure to ask questions if you need more help with a topic.

I CAN REPRESENT CATEGORICAL DATA.

Danielle's Dance Studio offers one free class for new customers. The table shows the type of class new customers chose. Use the data to answer #1-2.

BALLET	TAP	HIP-HOP	JAZZ
35	10	50	20

- Label the axes of the graph with the titles. Then, draw a bar of the appropriate size to correspond with each category.
- What is the difference between the customers that chose ballet and the customers that chose hip-hop?

3. The 5th graders in Mrs. Bell's class had a pizza party. The frequency table shows the number of packages sold on Wednesday. Fill in the frequency column, and then determine the number of the 2 flavors with the highest frequency.

GUM FLAVOR	TALLY	FREQUENCY
PEPPERMINT	THL THL THL III	
SPEARMINT	THL THL THL IIIII	
CINNAMON	THL THL THL THL II	
WATERMELON	THL THL THL THL I	

The dot plot shows the number of drinks on several mobile orders at a local coffee shop. Use the data to answer #5-6.

- What is the difference between the number of orders that had 4 drinks or less and the number of orders that had more than 4 drinks?
- What fraction of the orders had 4 drinks?

REPRESENTING CATEGORICAL DATA STUDENT HANDOUT

Name Answer Key _____
Date _____ Pd _____

Collecting data provides information that can be used to solve problems or make decisions. Data that can be divided into groups or categories is called categorical data.

- If data was collected using the question shown at the right, would this be an example of categorical data? Why or why not?
Yes; the data can be sorted into categories.
- Write your own example of a question that could be answered with categorical data:
***Answers will vary**

A bar graph is one way to represent categorical data as described below.

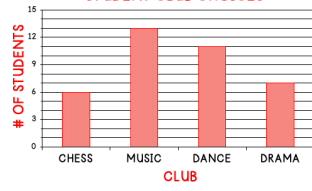
BAR GRAPHS

- One axis displays the categories of data, and the other axis displays numerical values.
- Bar graphs can be oriented either vertically or horizontally.
- The amount of each category can be determined by looking at the value that corresponds to the top or end of each bar.

In #1-2, represent the given data on the bar graph by first labeling the axes of the graph with the appropriate titles. Then, draw a bar of the appropriate size to correspond with each category.

- Students at Woodland Intermediate School were asked to select their first choice for a club for their enrichment period. The results of Mr. Lee's class are shown in the table below.

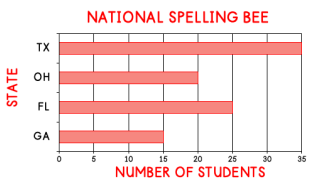
CHESS	MUSIC	DANCE	DRAMA
6	13	11	7



7 students

- The table below shows the number of students from each state participating in the national elementary school spelling bee.

TEXAS	OHIO	FLORIDA	GEORGIA
35	20	25	15



60 students

answer keys included

