

DATA ANALYSIS

OVERVIEW

	FOCUS	STANDARD
WEEK 1	Bar Graphs	TEKS: 3.8AB CC: 3.MD.B.3
WEEK 2	Pictographs	TEKS: 3.8AB CC: 3.MD.B.3
WEEK 3	Line Plots, Relate to Measurement	TEKS: 3.8AB CC: 3.MD.B.4
WEEK 4	Frequency Tables and Graphing Project	TEKS: 3.8AB CC: 3.MD.B.3

DAILY LESSON PLANS

-20 Days of Lesson Plans for:

Week 1: Bar Graphs

Week 2: Pictographs

Week 3: Line Plots

Week 4: Frequency Tables and Graphing Project

BAR GRAPHS

LINE PLOTS

Day Two

FOCUS	OBJECTIVE	MATERIALS
Intro to Measure and Plot	I can measure objects and plot the measurements	pops or cotton balls, string (optional)
VOCABULARY WORDS	WORD PROBLEM	
LINE PLOT, RULER, INCH	Frequency tables, measurement, measure, compare, compare, compare	
FOCUS	MINILESSON	
Intro to line plot		

LINE PLOTS

Day Three

FOCUS	OBJECTIVE	MATERIALS
gathering data and creating bar graphs	I can read and create bar graphs	Candy, Brown Paper Bags
VOCABULARY WORDS	WORD PROBLEM	
SCALE 2	Frequency tables, measurement, measure, compare, compare, compare	
FOCUS	MINILESSON	
gathering data and creating bar graphs		

BAR GRAPHS

Day Two

FOCUS	OBJECTIVE	MATERIALS
gathering data and creating bar graphs	I can read and create bar graphs	Candy, Brown Paper Bags
VOCABULARY WORDS	WORD PROBLEM	
SCALE 2	Frequency tables, measurement, measure, compare, compare, compare	
FOCUS	MINILESSON	
gathering data and creating bar graphs		

LINE PLOTS

Day Three

OBJECTIVE	MATERIALS
I can measure objects and plot the measurements	rulers or ruler
VOCABULARY WORDS	WORD PROBLEM
RULER, INCH	Frequency tables, measurement, measure, compare, compare, compare
FOCUS	MINILESSON
Measuring from A-Z	

LINE PLOTS

Day Four

FOCUS	OBJECTIVE	MATERIALS
Measure and Plot	I can measure objects and plot the measurements	ruler or ruler template
VOCABULARY WORDS	WORD PROBLEM	
LINE PLOT, RULER, INCH, FOOT	Frequency tables, measurement, measure, compare, compare, compare	
FOCUS	MINILESSON	INTERACTIVE NOTEBOOKS
Measure and Plot, Assess		

LINE PLOTS

Day Five

FOCUS	OBJECTIVE	MATERIALS
Measure and Plot, Assess	I can measure objects and plot the measurements	ruler or ruler template
VOCABULARY WORDS	WORD PROBLEM	
LINE PLOT, RULER, INCH, FOOT	Frequency tables, measurement, measure, compare, compare, compare	
FOCUS	MINILESSON	ASSESSMENT
Measure and Plot, Assess		

MINILESSON

Frequency tables, measurement, measure, compare, compare, compare

ACTIVITY

CANDY SHOP STORY

Introduce using a tally chart to collect data. The students will place four pieces of candy in their Candy Shop bag. They will then draw a piece of candy from the bag for a total of 20 times and tally their data. If candy is not available, use the candy templates.

The students will display the data on their graph with a scale of two.

INTERACTIVE NOTEBOOKS

Students will cut out the graph and glue it to the top. Then they will cut out their 6 squares to create flaps. The students will interpret the graph and answer each question under the correct flap.

ACTIVITY

Measuring from A-Z. Place the A-Z picture cards around the room or give a set to each table. Students will measure to the nearest inch/half inch. We are measuring across the bottom horizontal line. Students measure the object and use the frequency table to tally their measurements. There is also a recording sheet just for the measurements if you prefer to have that separately. After students have measured the pictures, they will take their data and create a line plot.

INTERACTIVE NOTEBOOKS

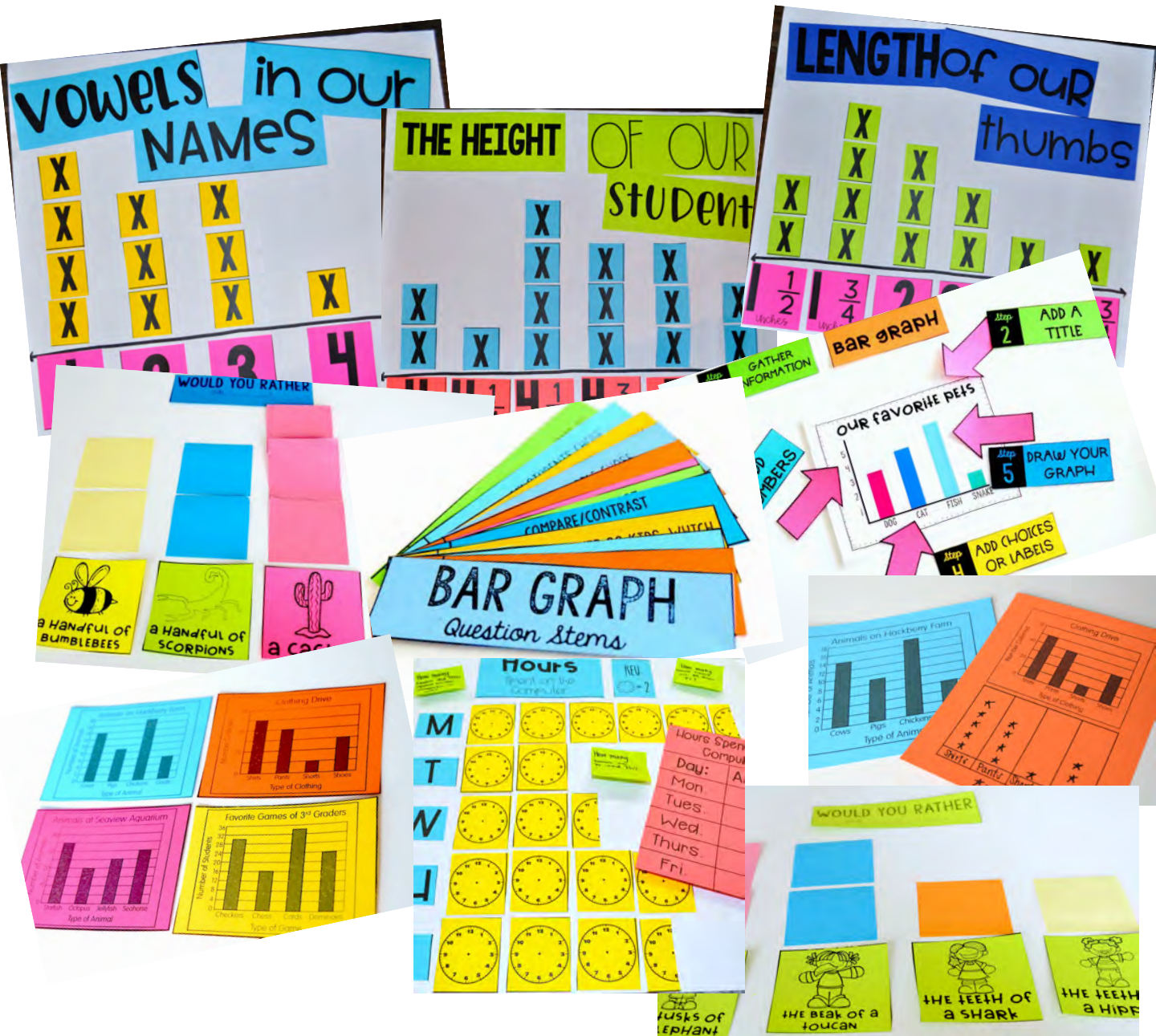
Books Rec Student Students the rector between the triaps. Students glue underneath the line plot and allow the five flaps to lift up. Students analyze the line plot and answer questions.

ASSESSMENT

Students take a line plot assessment

MINILESSONS

- Ideas and materials on how to teach the concepts
- Hands On and Fun for students



FUN ACTIVITIES



INTERACTIVE NOTEBOOKS

Activities that are easy to cut and glue into math spirals/interactive notebooks



DAILY WORD PROBLEMS

Each week students will glue a graph into their spirals. They will use the daily journal prompts to answer questions about the graph. There are four sets included.

WORD PROBLEM- DAY ONE

Answer the questions about the line plot:

1. How many students scored at least 60 points?
2. How many students scored more than 70 points?

Answer the questions about the line plot:

1. How many students scored 60 or less points?
2. How many students scored more than 70 points?

Answer the questions about the line plot:

1. How many students scored 60 or less points?
2. How many students scored more than 70 points?

WORD PROBLEM- DAY TWO

How many students are represented on the line plot? Explain your thinking.

How many students are represented on the line plot? Explain your thinking.

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How many students are represented on the line plot? Explain your thinking.

How many students are represented on the line plot? Explain your thinking.

WORD PROBLEM- DAY FOUR

How many more students scored 65 points than students that scored 55 or less points?

How many more students scored 65 points than students that scored 55 or less points?

How many more students scored 65 points than students that scored 55 or less points?

WORD PROBLEM- DAY FIVE

How many more students scored 60 or less points than students that scored 80 points?

How many more students scored 60 or less points than students that scored 80 points?

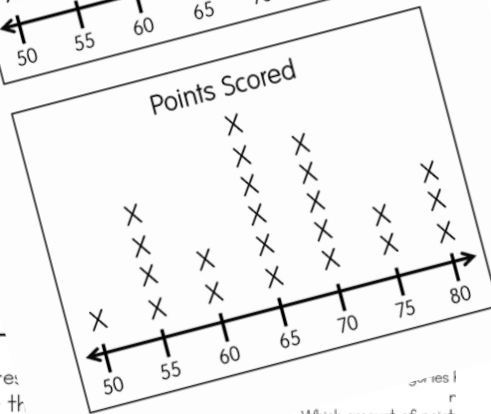
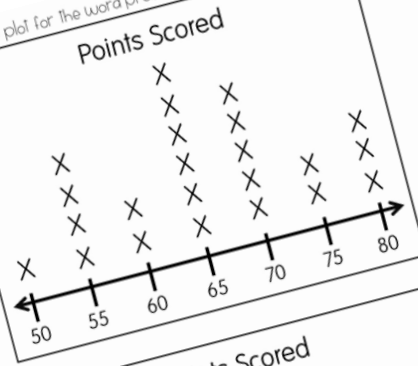
How many more students scored 60 or less points than students that scored 80 points?

How many more students scored 60 or less points than students that scored 80 points?

How many more students scored 60 or less points than students that scored 80 points?

How many more students scored 60 or less points than students that scored 80 points?

Use this line plot for the word problem each day. Glue into spirals.



Which amount of points is represented?

Answer the question below about the line plot:

1. Which two categories have the same amount of students represented?
2. Which amount of points has the least amount of students represented?

- Answer the questions below about the line plot:
1. Which two categories have the same amount of students represented?
 2. Which amount of points has the least amount of students represented?

VOCABULARY CARDS

Cards that you can display on a math word wall or bulletin board

DATA

Type of Pie	Number Sold
Apple	100
Cherry	150
Pumpkin	75
Chocolate	125

SURVEY

Which type of milk is your favorite?

GREATER THAN

$5 > 2$

INCH

about the size of a paperclip, thimble, or eraser

LEVELS

LESS THAN

$4 < 8$

FOOT

12 inches = 1 foot

LEVELS

LEAST TO GREATEST

2, 5, 9

EQUAL TO

$5 = 5$

LENGTH

We can measure an object to find the distance from one end to another.

PICTOGRAPH

GREATEST TO LEAST

9, 5, 2

HEIGHT

Distance from the bottom to the top

LINE PLOT

FREQUENCY TABLE

Month	Frequency
April	1
May	2
June	3
July	4

WIDTH

TALLY CHART

CENTIMETER





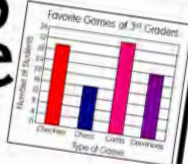
about the length of a dime, staple, or ant

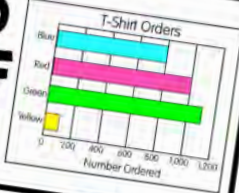
RULER



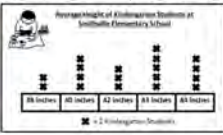
I CAN STATEMENTS

I Can Statements can be displayed throughout the unit.

I CAN:

- READ AND CREATE BAR GRAPHS**

- READ AND CREATE PICTOGRAPHS**

- COLLECT AND ANALYZE DATA**

- READ AND CREATE LINE PLOTS**

- USE CHARTS AND GRAPHS TO SOLVE PROBLEMS**


Type of Game	Number of Students
Checkers	20
Chess	10
Soccer	30
Basketball	25
- UNDERSTAND THE PARTS OF A GRAPH**


Color	Number Ordered
Blue	800
Red	1000
Green	1200
Yellow	100
- MAKE PREDICTIONS AND DRAW CONCLUSIONS**

- MEASURE AN OBJECT AND PLOT THE MEASUREMENTS**



Height (inches)	Number of Students
88 inches	2
87 inches	3
82 inches	4
81 inches	5
80 inches	6

QUICK ASSESSMENTS

LINE PLOTS

Number of Baskets Made

1. How many students made at least 2 baskets?

2. How many more students made 3 or more baskets than students who made 2 baskets?

MEASURE AND PLOT

Name: _____

BAR GRAPHS

Our Class' Favorite Sport

Number of students

basketball soccer football baseball

Finish the graph: 12 students voted for softball.

1. How many students voted in all? _____

PICTOGRAPHS

Soccer Goals Made

Key: = 20

Monday

1. How many goals were made on Monday?

2. True or False: Thursday _____

3. How many fewer goals were made on Thursday than on Monday?

4. How many goals were made on Tuesday?

5. On which two days were the most goals made?

6. Write two statements about the data.

Name: _____

FREQUENCY TABLE

Favorite Weather

Weather:	Girls:
	snowy
rainy	3
sunny	10

1. How many more boys than girls like snowy days best?

a. 10
b. 8
c. 4

2. True or False: 12 more students like snowy days than rainy days.

TRUE OR FALSE

3. How many girls prefer sunny days over snowy days?

a. 6
b. 8
c. 5

4. How many sunny days were represented on the chart?

a. 5
b. 4
c. 6

5. How many students are represented in the chart?

a. 50
b. 52
c. 53

6. Are there more boys or girls on the chart? Explain.

Name: _____

GRAPH ASSESSMENT

Popular Treats at the Circus

Popcorn Cotton Candy Peanuts Snow Cones

Key: = 4 votes

1. How many people voted for popcorn and peanuts combined?

a. 6
b. 12
c. 24

2. How many more people voted for popcorn than peanuts and snow cones combined?

a. 2
b. 10
c. 8

3. How many people are represented on the graph?

a. 45
b. 40
c. 44
d. 48

4. How many more people voted for cotton candy and peanuts combined than snow cones?

a. 8
b. 2
c. 10

more than basketball? _____

more than soccer? _____

more than baseball? _____

more than baseball than football and _____

ASSESSMENT

Litter at the Park

8 10 12

1. How many fewer pieces of litter were picked up than paper?

a. 4
b. 3
c. 5

2. Tina wrote $10 > 9$. What was she comparing?

a. plastic and aluminum
b. paper and Styrofoam
c. plastic and paper

3. How many more pieces of paper were picked up than Styrofoam?

a. 2
b. 3
c. 1

4. How many pieces of litter were collected in all?

WEEK ONE

Light Up Your Graph NEON!

Light Up Your Graph NEON!

Light Up Your Graph NEON!

Light Up Your Graph NEON!

COLOR	TOTAL TIMES DRAWN	TOTAL
PINK		3
BLUE		4
YELLOW		3

ROLL & GRAPH
with dice

data

Which number did you have the most of?

How many more times did you roll _____?

Which number did you roll the least of?

WOULD YOU RATHER

A HANDFUL OF BEEBEEES

A HANDFUL OF SCORPIONS

A CACTUS

POISON IVY

CANDY SHOP!

Candy Shop

CANDY SHOP!

FINGER TWISTER RESULTS

FINGER TWISTER

FINGER TWISTER

INDEX FINGER

MIDDLE FINGER

RING FINGER

PINKY FINGER

THUMB

Color

How many students like green and yellow?

How many students prefer the color red?

How many total students were surveyed?

Which color did the majority of students prefer?

Which colors had an even number of votes?

Which color did the least amount of students vote for?

Animals of Youvev Aquarium

Favorite Games of 3rd Graders

Shirley Drive

Types of Clothing

Jim Orders

WHAT IS THE SCALE OF THIS GRAPH?

HOW MANY MORE CHEESE ORDERS WERE PLACED THAN STRAWBERRY?

HOW MANY MORE CHEESE STRAWBERRY ORDERS WERE PLACED THAN RASPBERRY AND

Counting by 20's

100

200

300

400

500

600

700

800

900

1000

WEEK TWO

SWEET! SALTY! SOUR!

KEY: = 2

SWEET!

How many students voted salty?
How many fewer students voted for sour than sweet?

SWEET! SALTY!

How many more students voted salty than sweet?

Favorite Color

Number of Students

Color	Number of Students
Red	1
Blue	2
Green	3
Yellow	4

Favorite Color

Color	Number of Stars
Red	3
Blue	4
Green	5
Yellow	6

HIPP

HIPP

HIPP

HIPP

emojis

HIPP

HIPPOS

Color	Number of Hippos
RED	5
BLUE	7
YELLOW	3
GREEN	5
ORANGE	4
PINK	8

GRAPHING m&m's

SUPER HEROES

SUPER HERO SPIN

Pie Sales at Pop's Bakery

Day	Number of Sales
M	3
T	4
W	5
Th	6

WEEK THREE

VOWELS in our NAMES

X	X	X		
X	X	X		
X	X	X	X	X

1 2 3 4 5

THE LENGTH of our feet

How many students read at least 6 books?

How many students are in the plot?

Which number of books is found most often?

N

THE HEIGHT of our Students

4 4 1/4 4 1/2 4 3/4 5 5 1/4

How many students watch television for 2 or 4 or more hours each day?

5 + 6 = 11

MEASURING From A-Z

3 1/2 4 4 1/2 5 5 1/2

MEASURING From a-z

INCHES

INCHES

INCHES

INCHES

INCHES

MEASURING From a-z

a	3	B	4	C	5
E	4 1/2	F	4	G	3
I	5 1/2	J	4	K	4 1/2
M	3	N	5	O	4 1/2
R	3	S	3	T	3
V	4 1/2	W	5	X	3 1/2
Y	3 1/2	Z	4		

I'LL PUFF and I'LL PUFF

SPIN, MULTIPLY & PLOT

2	x	4	=	8
3	x	4	=	12
8	x	4	=	32
2	x	4	=	8
3	x	4	=	12
8	x	4	=	32
2	x	4	=	8
3	x	4	=	12
8	x	4	=	32
2	x	4	=	8
3	x	4	=	12
8	x	4	=	32
2	x	4	=	8
3	x	4	=	12
8	x	4	=	32
2	x	4	=	8
3	x	4	=	12
8	x	4	=	32

MEASURING From a-z

INCHES

INCHES

INCHES

INCHES

INCHES

MEASURING From a-z

INCHES

INCHES

INCHES

INCHES

INCHES

MEASURING From a-z

INCHES

INCHES

INCHES

INCHES

INCHES

target

Gummy measure

8 1/2	C	9	H	8 1/2
9 1/2	Q	9 1/2	L	8 1/2
9 1/2	K	8 1/2	P	9
9 1/2	O	8 1/2	R	9
8 1/2	S	9	T	8 1/2

Insect Investigations

Insect Investigations

target

Gummy measure

8 1/2	C	9	H	8 1/2
9 1/2	Q	9 1/2	L	8 1/2
9 1/2	K	8 1/2	P	9
9 1/2	O	8 1/2	R	9
8 1/2	S	9	T	8 1/2

Insect Investigations

LENGTH of our thumbs

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

WEEK FOUR

GRAZING on Graphs

Favorite Soda

Soda Options	Boys	Girls
Dr. Pepper	12	11
Coca Cola	17	22
Sprite	30	26
Apple Kiwi Soda	7	14
Fanta	15	0

QUESTION: How many more shirts and shorts are there?
 Answer: There are 20 more shirts than shorts planted.

GRAZING on Graphs

Clothing Drive

Number of Items	Shirts	Pants	Shorts
Shirts	4	13	21
Pants	10	13	21
Shorts	10	13	21

QUESTION: How many more shirts and shorts are there?
 Answer: There are 20 more shirts than shorts planted.

GRAZING on Graphs

Math Problems:

- A $9-4=$ 4
- B $8+5=$ 13
- C $6+7+5+3=$ 21
- D 50
- E 60
- F Oak-40 Maple-30
- G $8-5=$ 3
- H $3-3=$ 0
- I 26
- J CD-2
- K $80+30=$ 110
- L $9+6+3=$ 18
- HD-5 S-8 5+8=13
- I3-2= 1

Hours Spent on Computer

Day	Hours Spent
Mon.	1
Tues.	2
Wed.	3
Thurs.	4
Fri.	5

How many hours spent on computer?

Math Problems:

- M $10+30=40$
- T $25+30=55$
- N $60-55=5$
- J $6-5=1$

Roll, Tally, Analyze

Even and Odd Numbers

Type of Number	Student One	Student Two
Even Numbers		
Odd Numbers		

QUESTION: How many more even numbers did Student One have?
 Answer: 2

QUESTION: How many more odd numbers did Student Two have?
 Answer: 3

QUESTION: How many more even numbers did Student One have than odd numbers?
 Answer: 12-9=3

QUESTION: How many more odd numbers did Student Two have than even numbers?
 Answer: 11-8=3

QUESTION: How many more even numbers did Student One have than odd numbers?
 Answer: 12-8=4

How We Get Home

Mode of Transportation	Students
Car Rider	9
Bus Rider	6
Walker	7

How many students walk to school?

How many students ride the bus to school?

How many students ride the car to school?

Red Light, Green Light

Stoplight Color

Color	Student One	Student Two
Red Light		
Yellow Light		
Green Light		

QUESTION: How many more red lights did Student One have?
 Answer: 5-4=1

QUESTION: How many more yellow lights did Student Two have?
 Answer: 9-7=2

QUESTION: How many more green lights did Student One have?
 Answer: 8-7=1

ISRAEL'S GRAPH PROJECT

Favorite Seafood

Fish Type	Boys	Girls
salmon	7	5
catfish	4	9
shrimp	8	6
lobster	3	2
tuna	6	8

QUESTION: How many more salmon did boys eat?
 Answer: 7-5=2

QUESTION: How many more catfish did girls eat?
 Answer: 9-4=5

QUESTION: How many more shrimp did boys eat?
 Answer: 8-6=2

QUESTION: How many more lobster did boys eat?
 Answer: 3-2=1

QUESTION: How many more tuna did girls eat?
 Answer: 8-6=2

Favorite Seafood

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 Answer: 9-4=5

QUESTION: How many more shrimp did boys eat?
 Answer: 8-6=2

QUESTION: How many more lobster did boys eat?
 Answer: 3-2=1

QUESTION: How many more tuna did girls eat?
 Answer: 8-6=2

GRAPHING PROJECT

topic idea

Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8

OUR TOPIC:

Favorite Card Game

Categories:

Uno	Strip Bo	Go Fish	Old Maid	War	Crazy 8
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3 1 2

Alex wrote $7 > 4$. What she comparing?

Strip Bo Go Fish Uno

How many students are presented in the data?

20 24 2

How many more students like Go Fish than Uno?

7 2

Favorite Card Game

Uno	●●●●
Strip Bo	●●●●
Go Fish	●●●●
Old Maid	●●●●
War	●●●●
Crazy 8	●●●●

Each

ISRAEL'S

GRAPH PROJECT

Uno	
Strip Bo	
Go Fish	
Old Maid	
War	
Crazy 8	

Who did you survey?

Card Game