

20 Days of Lesson
Plans and Activities

1st+
grade

THE MAGIC OF MATH
Unit 8:
graphing

by Hope King and Amy Lemons

Unit eight

DATA & GRAPHS OVERVIEW

	FOCUS	STANDARD
WEEK 1	Pictographs	TEKS: 1.8AB CC: 1.MD.C.4
WEEK 2	Bar Graphs	TEKS: 1.8AB CC: 1.MD.C.4
WEEK 3	Collect and Sort Data, T-Charts and Tally Marks	TEKS: 1.8A CC: 1.MD.C.4
WEEK 4	Graphing Wrap- UP	TEKS: 1.8ABC CC: 1.MD.C.4

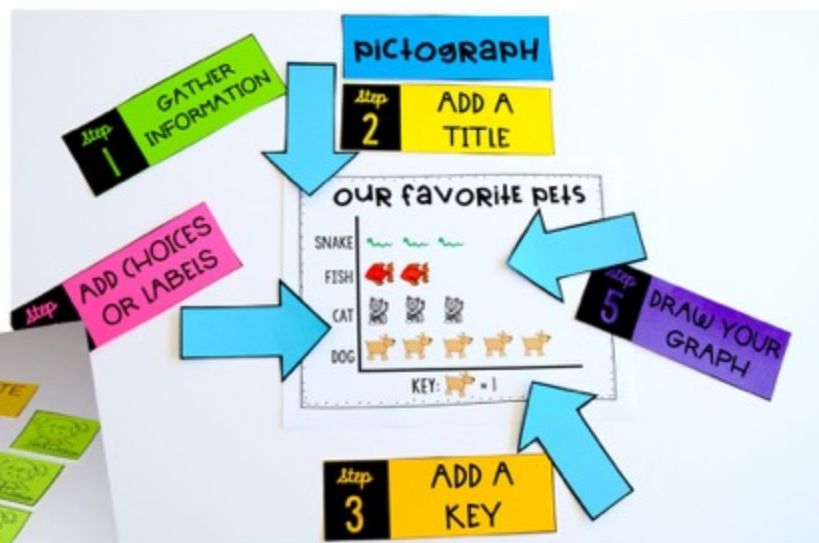
WEEK ONE

graphing:

PICTOGRAPHS

day 1

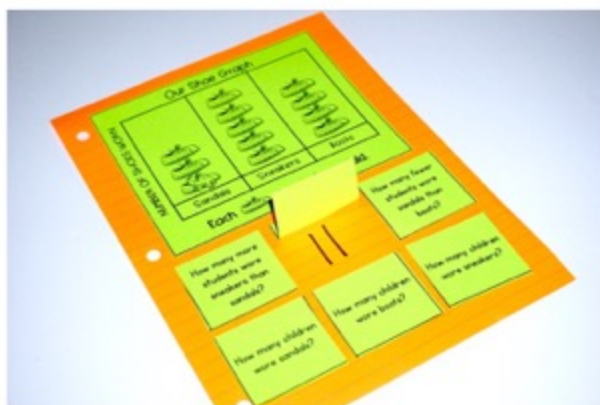
Minilesson: Class graph and graph labels



Activity:
Spin-a-shape



Independent Work: Shoe Graph



day 2

Minilesson: Our Favorite Sport Class Graph



Activity:
Barnyard
Bash
Pictograph



Independent Work:
Pictograph quick check

Name: _____

PICTOGRAPH QUICK CHECK

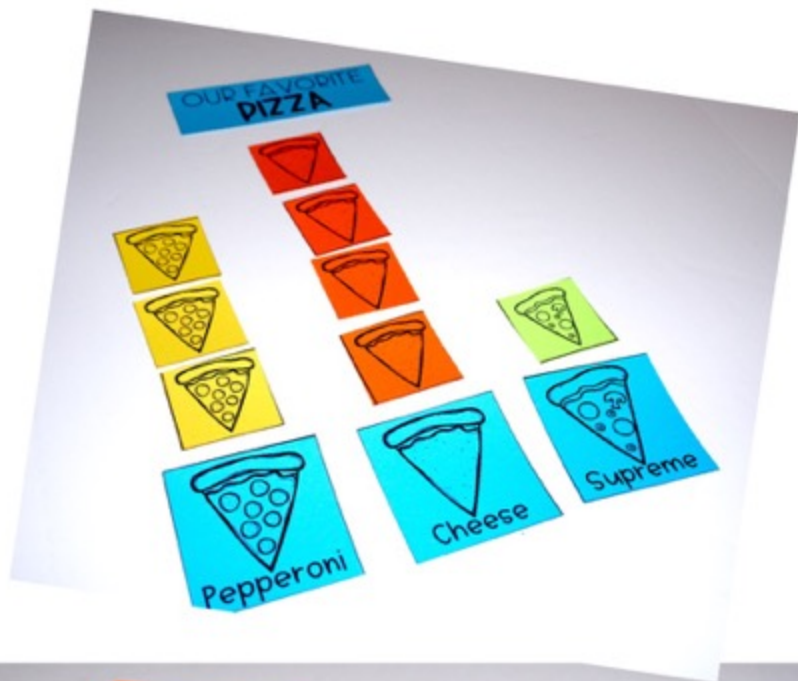
Pie Problems

	apple	cherry	pumpkin
Each			
stands for 1 child			

- How many children chose cherry pie?
- How many children chose pumpkin pie?
- How many children chose apple pie?
- How many more children chose apple pie than cherry pie?
- How many fewer children chose cherry pie than pumpkin pie?
- How many children are represented on the graph in all?
- How many more children chose apple pie than pumpkin pie?
- How many children chose cherry pie and pumpkin pie?

day 4

Minilesson: Our Favorite Pizza Class Graph



Activity: Heads or Tails?



Independent Work: Favorite Dinosaur Interpretation

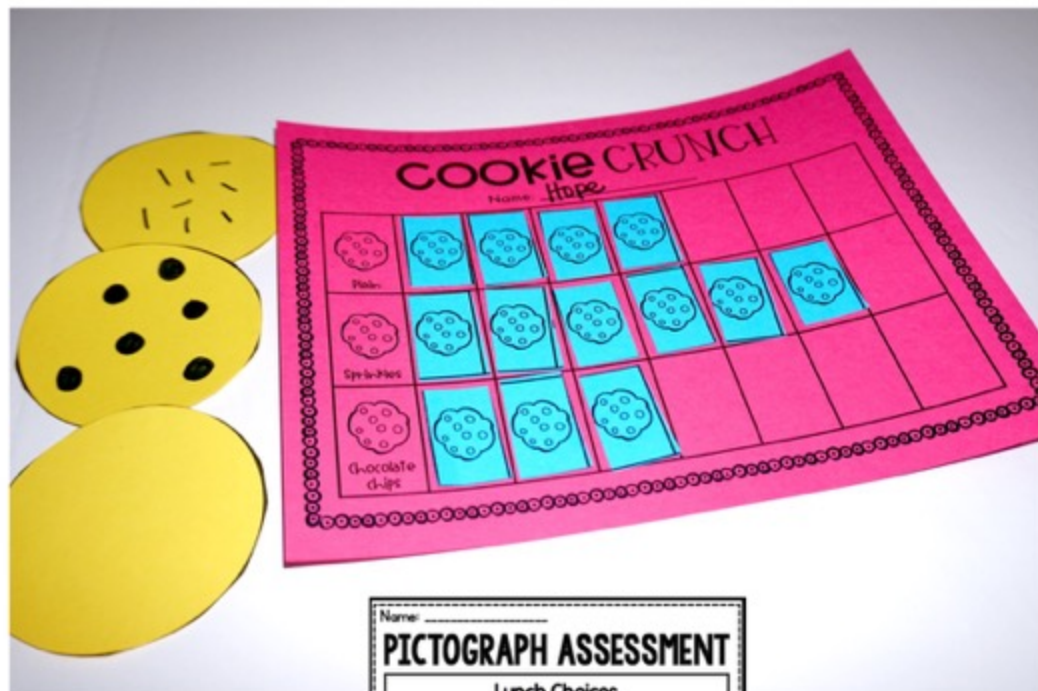


day 5

Minilesson: Our Favorite Transportation Class Graph



Activity: Cookie Crunch



Independent Work: Pictograph Assessment

Name: _____

PICTOGRAPH ASSESSMENT

Lunch Choices

<input type="checkbox"/> sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> pizza	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> soup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Each stands for 1 child.

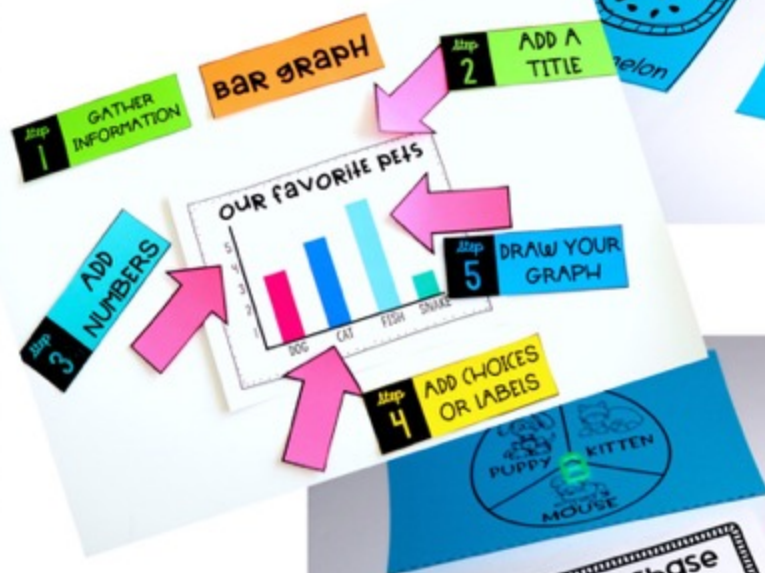
- How many children chose for lunch?
- How many children chose a for lunch?
- How many children chose for lunch?
- How many fewer children chose than ?
- How many more children chose than ?
- How many children are represented on the graph in all?
- How many more children chose than ?
- How many children chose and ?
- How many children chose and ?

WEEK TWO

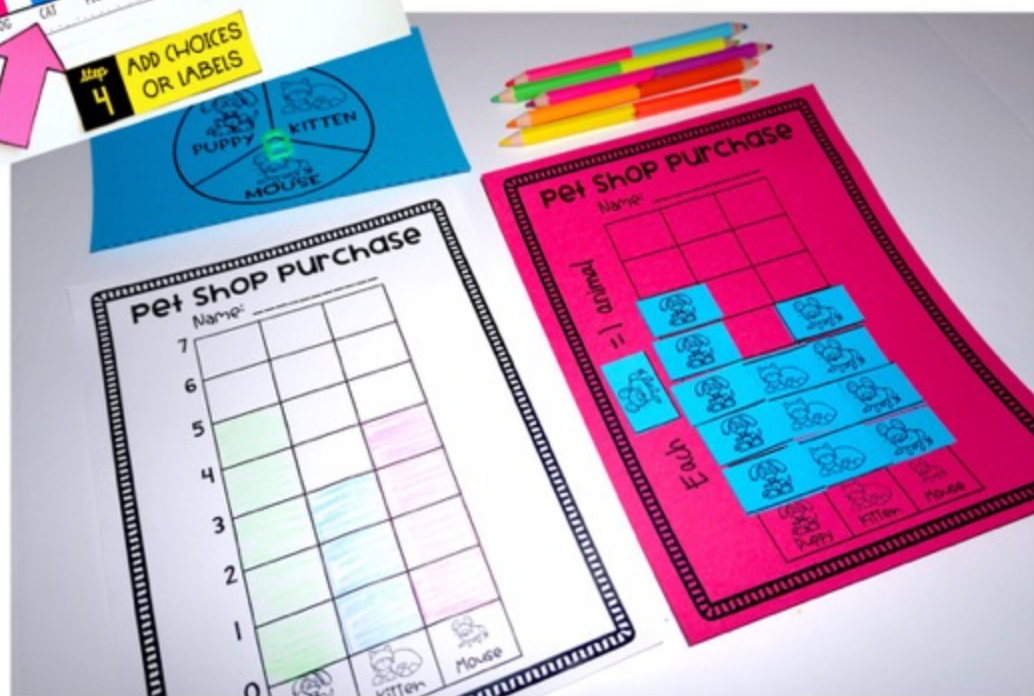
graphing:
BAR GRAPHS

day 1

Minilesson: Class graph and graph labels



Activity: Pet Shop Bar Graph and Pictograph

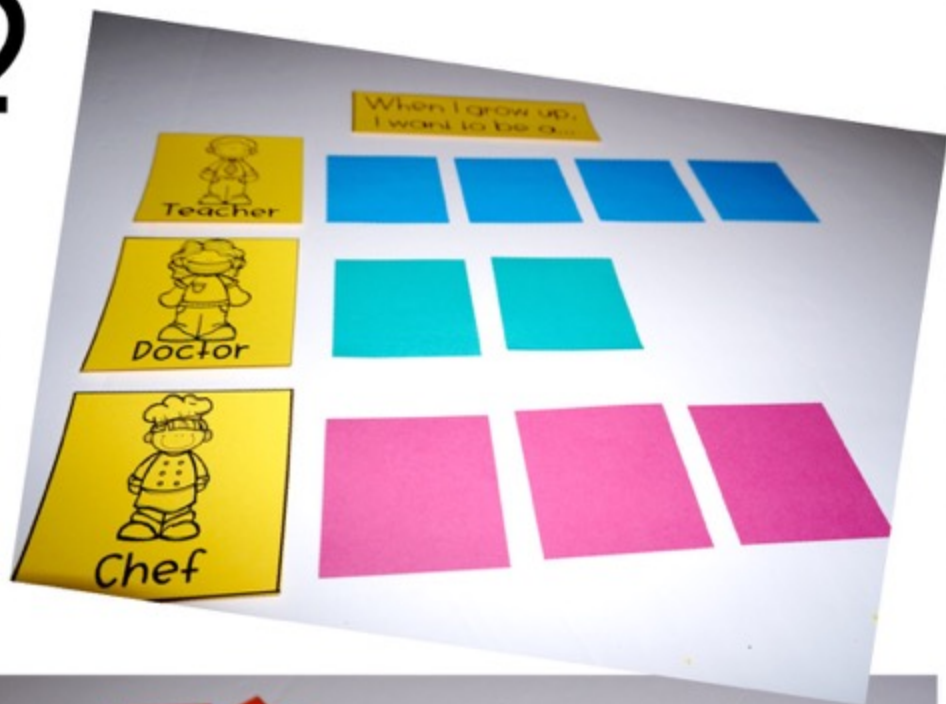


Independent Work: Spin and Graph

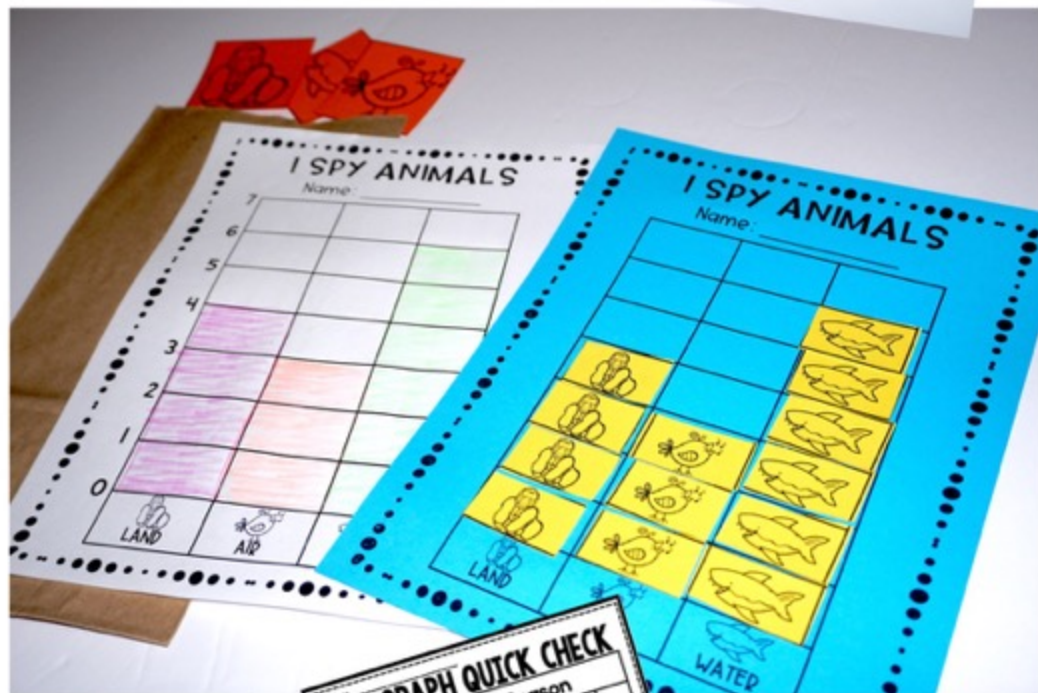


day 2

Minilesson:
When I grow
up... Class Graph



Activity: I
Spy Animals
Bar Graph
and
Pictograph



Independent Work: Bar
Graph Quick Check

BAR GRAPH QUICK CHECK
Name: _____
Our Favorite Season

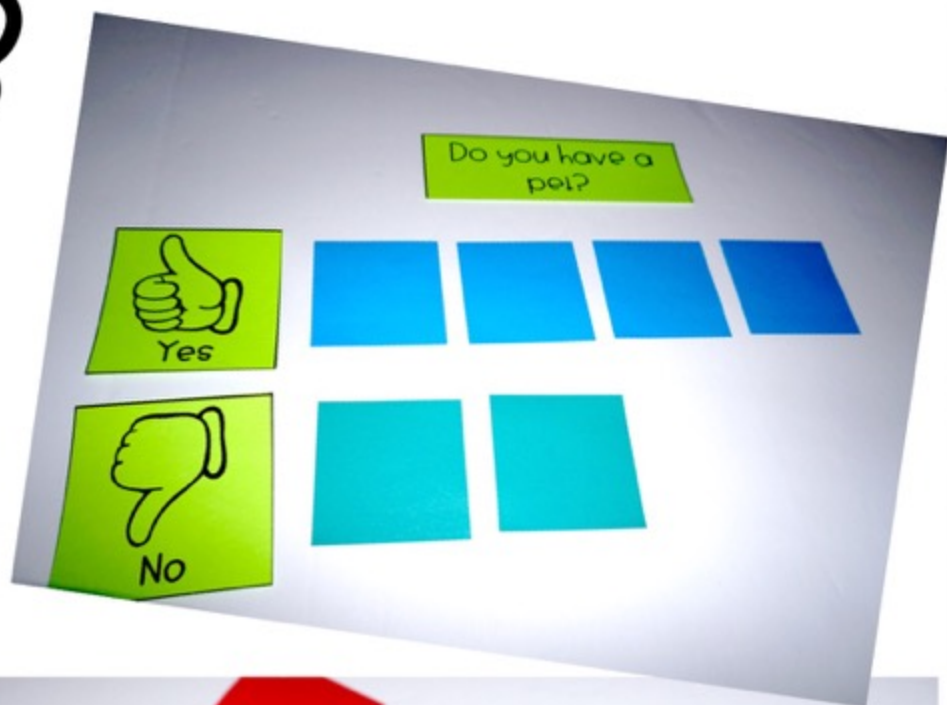
Season	0	1	2	3	4	5	6	7
SPRING								
SUMMER								
FALL								
WINTER								

Number of Votes

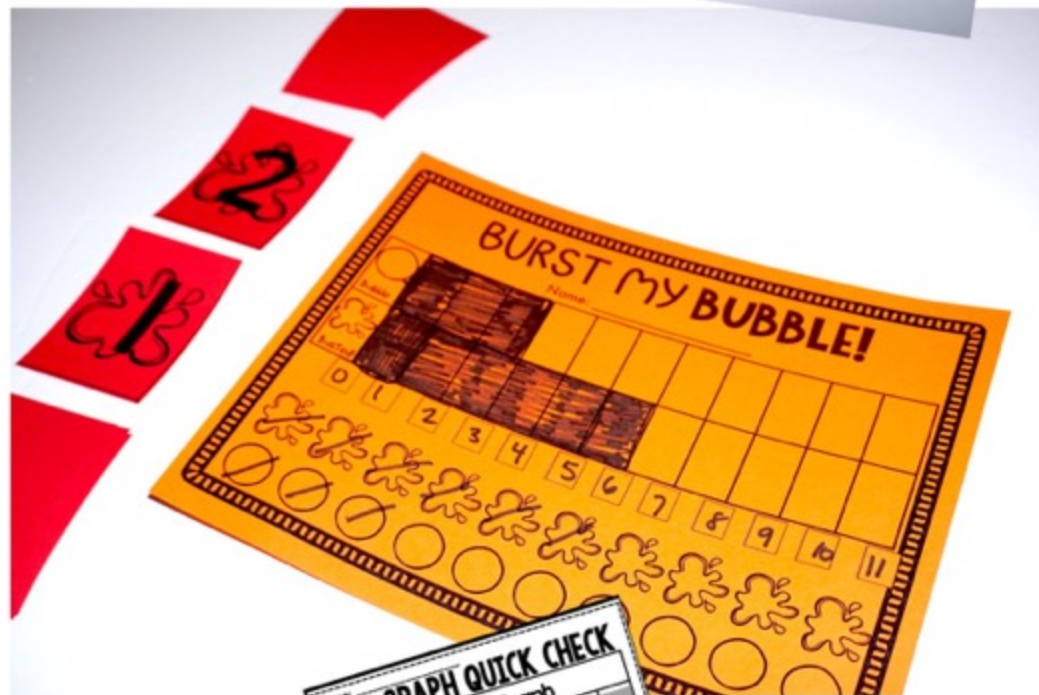
- How many children chose summer?
- How many fewer children chose winter than fall?
- How many more children chose fall than summer?
- How many children chose summer and fall?
- How many more children chose fall than summer?
- How many children are represented on the graph in all?
- How many children chose summer and fall?
- How many children chose winter?
- How many children chose summer and winter?

day 3

Minilesson: Do you have a pet? Class Graph



Activity: Burst My Bubble Bar Graph



Independent Work: Bar Graph Quick Check

BAR GRAPH QUICK CHECK
Weather Graph

Weather	0	1	2	3	4	5	6	7
SUN								
CLOUD								
RAIN								
SNOW								

Number of Days

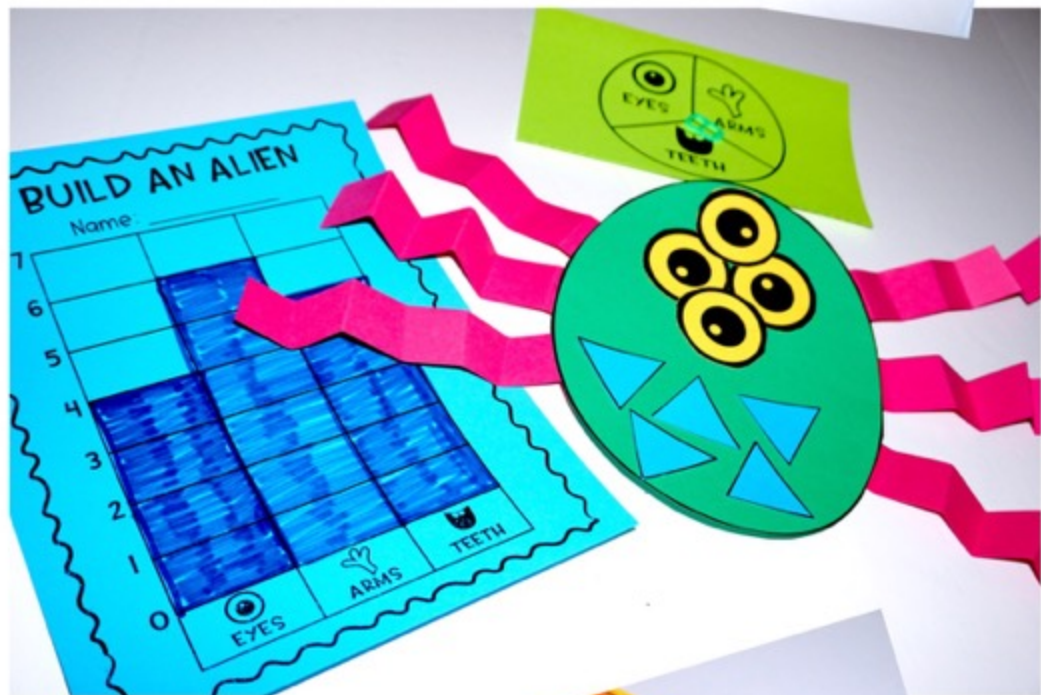
1. How many days was it rainy?
2. How many days was it sunny?
3. How many more days was it rainy than sunny?
4. How many more days was it sunny than rainy?
5. How many days did the class track the weather altogether?
6. How many days was it cloudy and sunny?
7. How fewer days was it cloudy than rainy?
8. How many days was it rainy and cloudy?

day 4

Minilesson:
Would you
rather class
graph



Activity:
Build an
Alien



Independent Work: Spin
and graph



day 5

Minilesson:
Musical Math
Bar Graph



Activity:
Greater
or Less
Bar Graph



Independent Work: Bar
Graph Assessment

BAR GRAPH ASSESSMENT
How We Get To School

Mode	0	1	2	3	4	5	6	7
WALK								
BIKE								
SCOOTER								

Number of Children

- How many children play soccer?
- How many children play football?
- How many children do dance?
- How many fewer people play football than soccer?
- How many children do dance and soccer together?
- How many children are represented on the graph in all?
- How many more children play football than do dance?
- How many fewer children do dance than soccer?
- How many children play football and soccer in all?

WEEK THREE

graphing:
COLLECTING
DATA

day 1

Minilesson: Introducing Tally Charts

Step 1 ADD CHOICES OR LABELS

Step 2 ADD A TITLE

Step 3 GATHER INFORMATION

Step 4 ADD TALLY MARKS

Step 5 THINK ABOUT DATA

TALLY CHART

WOULD YOU RATHER
go to the beach or the mountains?

WOULD YOU RATHER
go to the beach or the mountains?

CH

MOUNTAINS

TALLY CHART

TALLY CHART

Activity: Target Toss

TARGET TOSS		
YELLOW		6
BLUE		8
RED		6
1. How many times did you land on yellow?	2. How many times did you land on blue?	3. How many times did you land on red?
6	8	6
4. Which color did you land on the most?	5. Which color did you land on the least?	6. How many times did you land on yellow and blue together?
Blue	Y & R	6+8=14
7. How many times did you land on red and blue together?	8. How many times did you land on yellow and red together?	9. How many times did you toss the pom-pom in all?
8+6=14	6+6=12	20

Interactive Notebook:

HAVE YOU EVER BEEN TO THE CIRCUS?

YES	NO

How many students have been to the circus? $8+4=12$

How many students have not been to the circus?

How many MORE students have gone to the circus than those who have not?

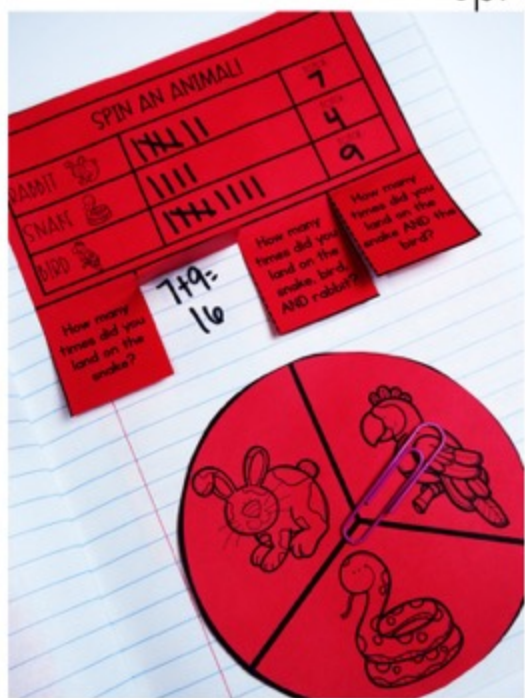
day 2

Minilesson: Have You Ever Gone Fishing?



Interactive Notebooks:

Activity: Add Some Sprinkles



ADD SOME SPRINKLES			Name: _____
PURPLE		10	
RED		3	
BLUE		7	

- How many blue sprinkles does your ice cream have? 7
- How many red sprinkles does your ice cream have? 3
- How many purple sprinkles does your ice cream have? 10
- Which color do you have the most of on your ice cream? PURPLE
- Which color do you have the least of on your ice cream? RED

day 3

Minilessons: Which do you like better?
Cats or Dogs



Activity:
Scoop a Shape

CIRCLE ○	SQUARE □	TRIANGLE △

- Which shape do you have the least amount of? △
- Which shape do you have the greatest amount of? ○
- How many more circles do you have than triangles? 3
- How many triangles and squares do you have together? 12
- How many more squares do you have than triangles? 2

Interactive Notebooks

HAVE YOU EVER BEEN TO ANOTHER COUNTRY?

YES	NO

How many students HAVE been to another country? 10

How many students were asked in all?

How many MORE students HAVE NOT been to another country than those that HAVE?

day 4

Minilessons: Which do you like better?
Cereal or Oatmeal

Activity: The Spotted Snake



The spotted snake Name: _____

PINK		total: 7
GREEN		total: 5
ORANGE		total: 3

- How many pink spots does the snake have? 11
- How many green spots does the snake have? 5
- How many orange spots does the snake have? 3
- Which color of spots does your snake have the most amount of? pink
- Which color of spots does your snake have the least amount of? orange

WHICH DO YOU LIKE BETTER?
cereal or oatmeal

CEREAL

OATMEAL

WHICH DO YOU LIKE BETTER?
cereal or oatmeal

CEREAL

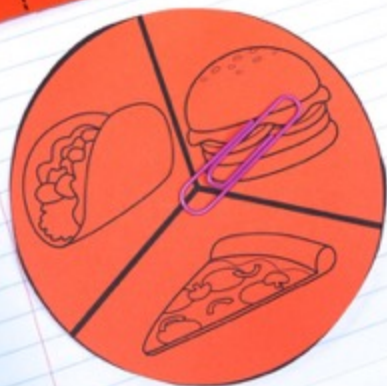
OATMEAL

THE GREAT FOOD SPIN!

PIZZA		total: 4
HAMBURGER		total: 6
TACO		total: 10

How many times did you land on the hamburger AND the pizza together? More Tacos than Pizza

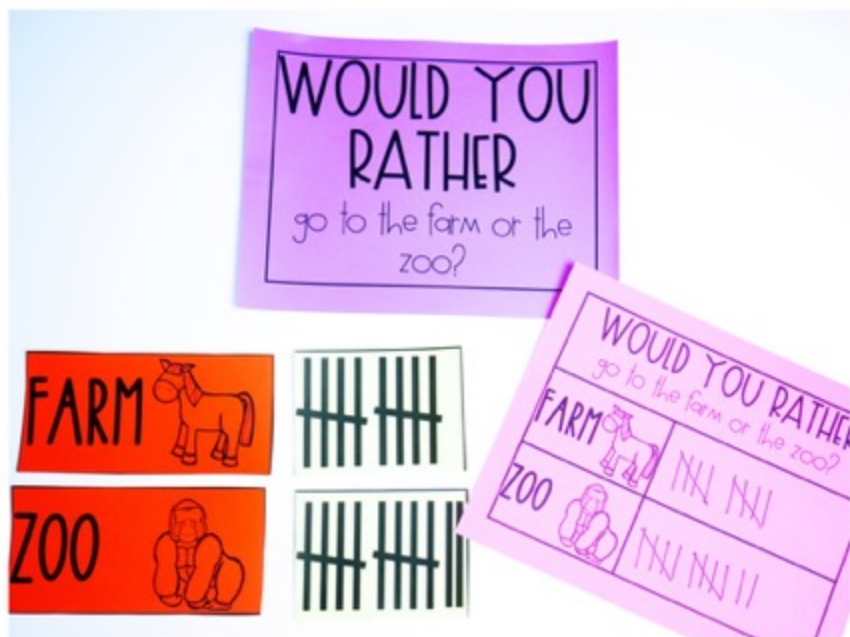
Which item did you land on the GREATEST amount of times?



Interactive Notebooks

day 5

Minilesson: Would you rather go to the farm or the zoo?



Activity: I Spy Scoot

Assessment:



Name: _____

TALLY CHART ASSESSMENT

boys	girls	
1. How many girls are in the class? <u>7</u>	2. How many boys are in the class? <u>9</u>	3. Are there fewer girls or boys? <u>Girls</u>
4. Are there more girls or boys in the class? <u>Boys</u>	5. How many children are in the class in all? <u>7+9=16</u>	6. How many more boys are in the class than girls? <u>9-7=2</u>
7. How many fewer girls are there in the class than boys? <u>9-7=2</u>	8. If one more boy joined the class, how many more boys would there be than girls? <u>3</u>	9. Which group of tally marks shows the number 7? Boys or Girls? <u>Girls</u>

WEEK FOUR

graphing:

DRAWING

CONCLUSIONS

day 1

Minilesson: Whole Group Graph Talk- Our Pencils

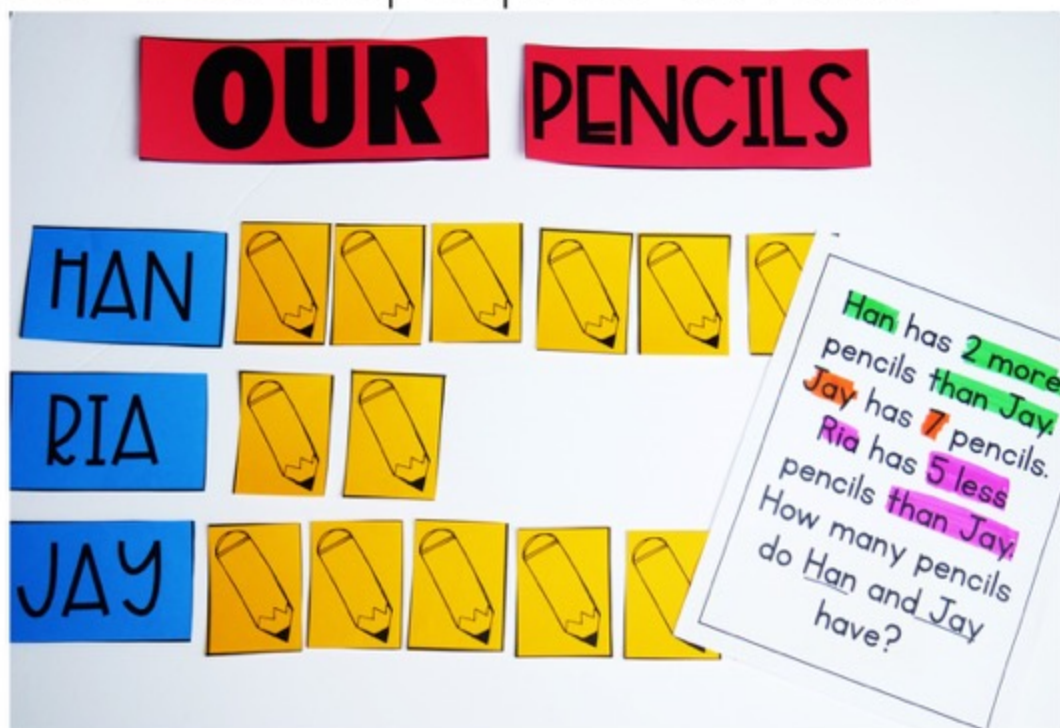
OUR PENCILS

HAN

RIA

JAY

Han has 2 more pencils than Jay.
Jay has 7 pencils.
Ria has 5 less pencils than Jay.
How many pencils do Han and Jay have?



Interactive Notebook:

Miguel has 2 red cars. He has 3 more blue cars than he has red cars. He has 10 cars total. How many blue and green cars does he have?

Car Colors	0	1	2	3	4	5	6	7	8
Red Cars									
Blue Cars									
Green Cars									

List how many Miguel has of each color of car.

3

How many green and red cars does he have together?

How many more green cars does he have?



GRAPHING PROJECT

Project: This will be worked on all week. Today students will get with their groups to select a topic and categories.

pictograph

Favorite Juice

Apple	●●●●●●●●●●
Grape	●●●●●
Orange	●●●●●●●●●●

QUESTIONS:

- How many children like each type
- How many children like it
- How were

CHECKLIST:

100

1. I chose a topic and categories

2. I have a survey

3. I have a...


CHECKED BY STUDENT:

SURVEY IT!

Favorite Juice

Juice type	Student Votes
Apple	8
Grape	4
Orange	9

Becky's Graph PROJECT



IDEAS

Favorite Fruit	Favorite Vegetable	Favorite Cookie
Favorite Juice	Favorite Cartoon	Favorite Dessert
Favorite Animal	Favorite Color	Favorite Milk
Favorite Costume	Favorite Insect	Favorite Toy

bar graph

Favorite Juice

Students	Apple	Grape	Orange
14			
13			
12			
11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			

Favorite Juice

Apple		7
Grape		4
Orange		9

Our Topic:

Favorite Juice

Three Categories:

Apple Grape Orange

Becky's Graph PROJECT



TOPIC IDEAS

Favorite Pizza	Favorite Sport	Favorite Fruit	Favorite Vegetable	Favorite Cookie
Favorite Toy	Favorite Juice	Favorite Cartoon	Favorite Dessert	Favorite Animal
Favorite Vacation	Favorite Animal	Favorite Apple	Favorite Color	Favorite Milk
Favorite Soup	Favorite Costume	Favorite Insect	Favorite Flower	Favorite Toy

Our Topic:

Favorite Juice

Three Categories:

Apple Grape Orange

day 2

Minilesson: Whole Group Graph Talk-Game Tickets

GAME TICKETS

ADULTS

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

CHILDREN

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

TICKET ADMIT ONE

There are 15 tickets to the game. The adults take 7 of the tickets. The children take the rest. How many tickets do the children take?

Interactive Notebook:

Group Work: Survey It!

There are 15 students in our class. 7 of the students are boys. The rest are girls. How many girls are in our class?

Students in Our Class

Students	0	1	2	3	4	5	6	7	8
Girls									
Boys									

How many boys are in the class?

How many girls are in the class?

How many more girls are there than boys?

17

SURVEY IT!

category:	data:
Juice type	Student Votes
Apple	8
Grape	4
Orange	9

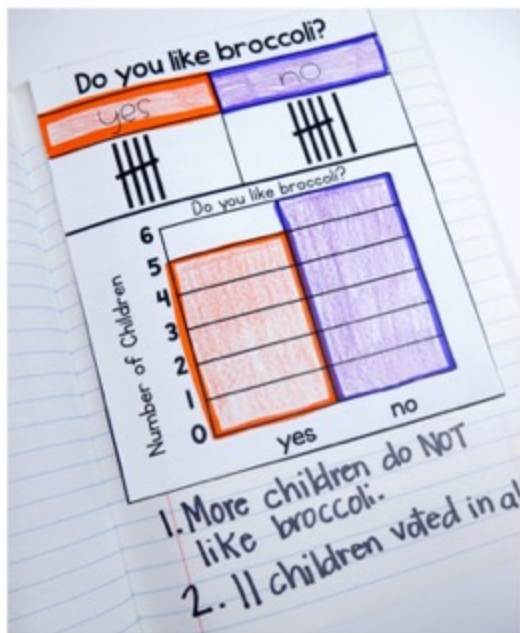
Who did you survey?

Students in Our Class

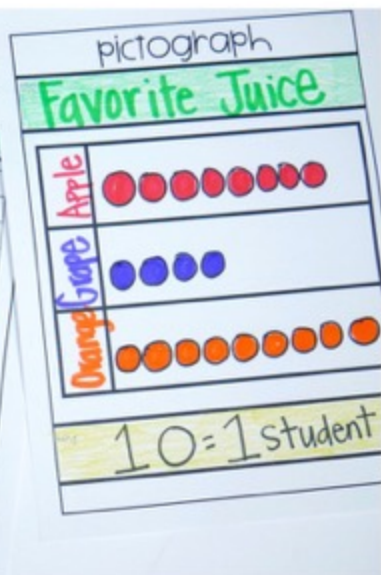
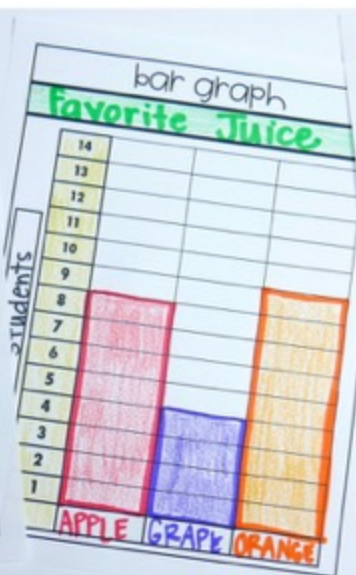
day 3

Minilesson: Generating Info Learned

Interactive Notebook:



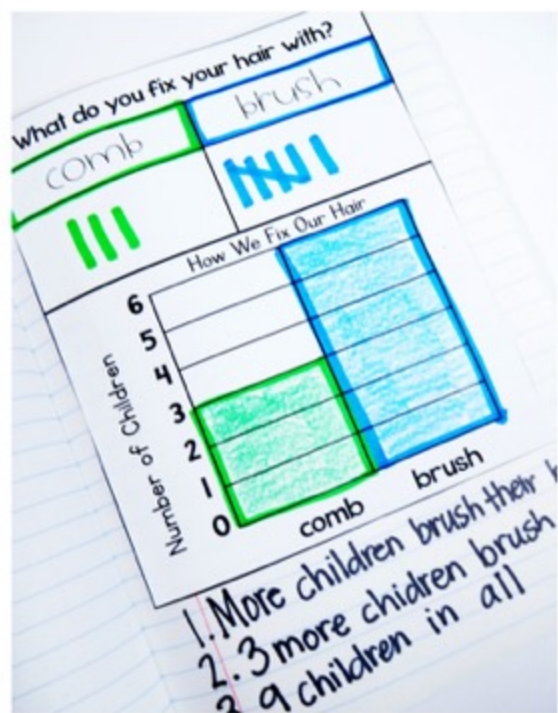
Group Work: Students create their graphs. This can be finished tomorrow.



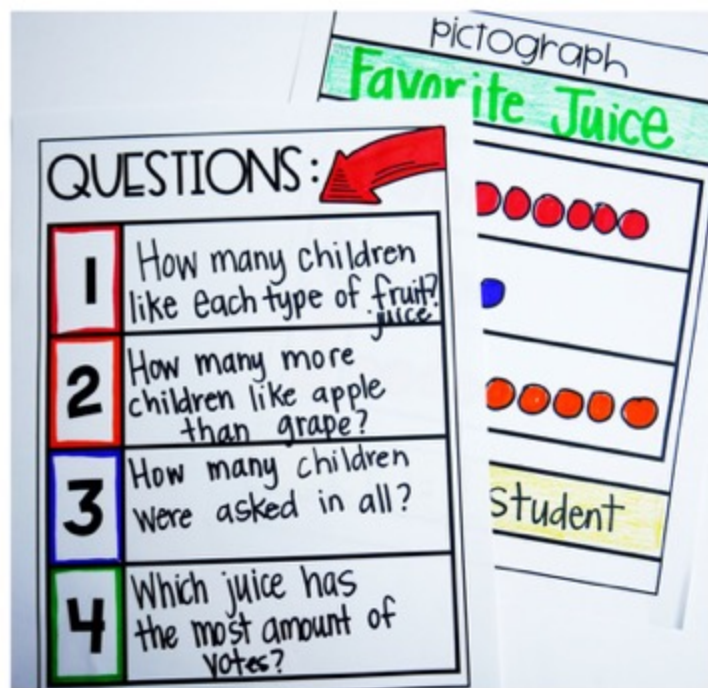
day 4

Minilesson: Generating Info Learned from a Graph

Interactive Notebook:

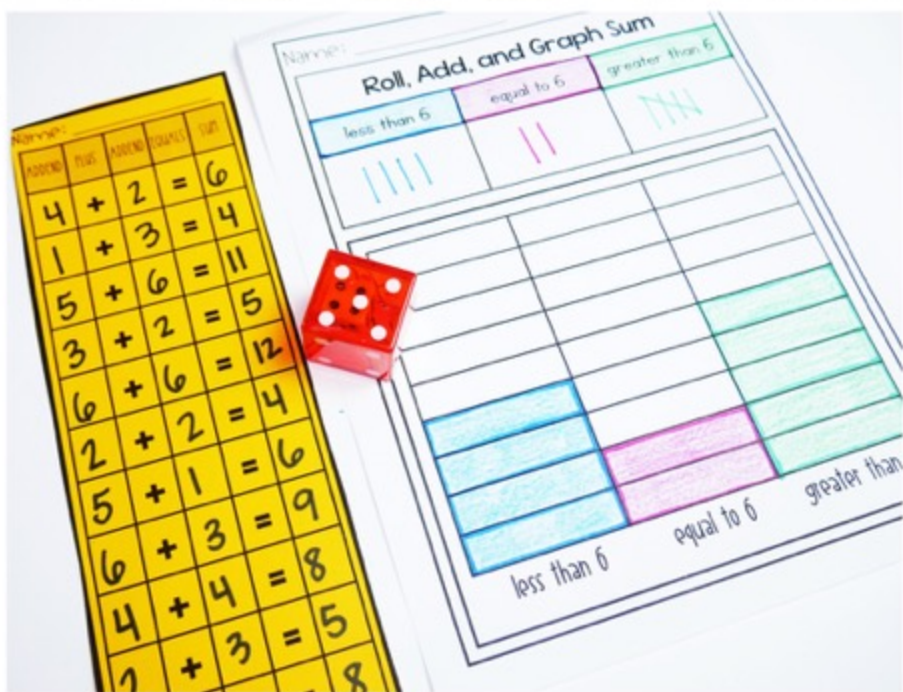


Group Work: Creating Questions



day 5

Activity: Roll, Add, Graph Sums



Assessment:

Group Work:
Completing Checklist
and Presenting Data

Name: _____

GRAPH ASSESSMENT

Animals at the Zoo

Amount of Animals	7			
6				
5				
4				
3				
2				
1				
		GIRAFFES	ZEBRAS	ELEPHANTS

- How many **zebras** were at the zoo?
a. 5
b. 7
c. 3
- How many more zebras at the zoo than giraffes?
a. 3
b. 1
c. 2 $7-5$
- How many **elephants and giraffes** are at the zoo in all?
a. 8 $3+5=8$
b. 9
c. 7
- How many **animals** are at the zoo in all?
a. 14 $5+7+3$
b. 16
c. 15 $5+10$

CHECKLIST:

	CHECKED BY STUDENT:	CHECKED BY teacher:
I chose a topic and categories.	✓	+10
I have a survey.	✓	+10
I have a bar graph.	✓	+10
I have a pictograph.	✓	+10
I have a tally chart.	✓	+10
I have four questions.	✓	+10
My project is neatly organized.	✓	+10
I worked well with my group.	✓	+10
I shared my graphs and data.	✓	+10
My project is complete.	✓	+10

100%

DAILY LESSON PLANS

Collecting data day 1

FOCUS	OBJECTIVE	MATERIALS
Introducing Tally Charts	I can collect and analyze data. I can use charts and graphs to solve problems.	paper

VOCABULARY
TALLY CHART, T

Collecting data day 2

MINILESSON	FOCUS	OBJECTIVE	MATERIALS
Each day for our minilesson will be making a class tally chart. Today you will introduce the parts of a tally chart a begin using the tally chart question stems. It is also important that students know how to count tally marks, so you might want to take some time to do that each day if they don't have prior knowledge.	Tally Charts with 2 or 3 categories	I can collect and analyze data. I can use charts and graphs to solve problems.	paperclip

VOCABULARY
TALLY CHART

Collecting data day 3

MINILESSON	FOCUS	OBJECTIVE	MATERIALS
TODAY'S CHART: Have you ever gone fishing? Choose whether you want to use the small or large version of the tally chart. Collect the data as a class and use tally marks to represent the votes taken. After data has been collected, use the question stems to discuss the tally chart. Students can follow along with you, or use the small tally chart to complete alongside of you.	Tally Charts with 2 or 3 Categories	I can collect and analyze data. I can use charts and graphs to solve problems.	bags or cups

VOCABULARY WORDS	WORD PROBLEM
TALLY CHART	

Collecting data day 4

MINILESSON	FOCUS	OBJECTIVE	MATERIALS
TODAY'S CHART: Which do you like better? cereal or oatmeal? Choose whether you want to use the small or large version of the tally chart. Collect the data as a class and use tally marks to represent the votes taken. After data has been collected, use the question stems to discuss the tally chart. Students can follow along with you, or use the small tally chart to complete alongside of you.	Tally Charts with 2 Categories		

VOCABULARY
TALLY CHART

MINILESSON
TODAY'S CHART: Which do you like better? cereal or oatmeal? Choose whether you want to use the small or large version of the tally chart. Collect the data as a class and use tally marks to represent the votes taken. After data has been collected, use the question stems to discuss the tally chart. Students can follow along with you, or use the small tally chart to complete alongside of you.

VOCABULARY WORDS	WORD PROBLEM
TALLY CHART, TITLE, LABELS	

Collecting data day 5

FOCUS	OBJECTIVE	MATERIALS
Review and Assess	I can collect and analyze data. I can use charts and graphs to solve problems.	no extra materials needed

VOCABULARY WORDS	WORD PROBLEM
TALLY CHART, TITLE, LABELS	If two more children are added which season they like the most, and they choose neither. How many more children will like summer than winter?

MINILESSON	ACTIVITY	ASSESSMENT
TODAY'S CHART: Would you rather go to the farm or the zoo? cereal or oatmeal? Choose whether you want to use the small or large version of the tally chart. Collect the data as a class and use tally marks to represent the votes taken. After data has been collected, use the question stems to discuss the tally chart. Students can follow along with you, or use the small tally chart to complete alongside of you.	I Spy Scoot! There are 8 I Spy Cards that students will visit. Give each table group the I Spy Cards or place them around the room. Students will visit each graph and count the objects shown. They will use their recording sheets to collect the data on for all eight cards.	Students take an assessment on tally charts.

VOCABULARY CARDS

BAR GRAPH



PICTO SURVEY



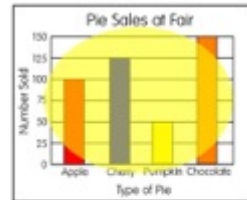
Which type of milk is your favorite?



TALLY CHAR-

TIT

DATA



NUMBER OR SCALE

LAB

GREATER THAN



**GRE
LEA**

LESS THAN



LEAST TO GREATEST

2, 5, 9, 12

i CAN STATEMENTS

I CAN:

**READ AND
CREATE BAR
GRAPHS**

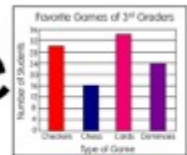


**READ AND
CREATE
PICTOGRAPHS**

**COLLECT AND
ANALYZE
DATA**



**USE CHARTS AND
GRAPHS TO SOLVE
PROBLEMS**



**UNDERSTAND
THE PARTS OF
A GRAPH**



**DRAW
CONCLUSIONS**



DAILY WORD PROBLEMS

WORD PROBLEM- DAY ONE

Write the time displayed on each clock.



Write the time displayed on each clock.



Write the time on the



Write the time on the



Write the time on the



Write the time on the



WORD PROBLEM- DAY TWO

Cara is reading an analog clock. The hour hand is on the 6. The minute hand is on the twelve. What is the time?

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Cara is reading an analog clock. The hour hand is on the 6. The minute hand is on the twelve. What is the time?

WORD PROBLEM- DAY THREE

Write the time on each clock. Then circle the correct way to say the time.



HALF PAST 1 OR HALF PAST 9



HALF PAST 6 OR HALF PAST 4

Write the time on each clock. Then circle the correct way to say the time.



HALF PAST 8 OR 11



WORD PROBLEM- DAY FOUR

Michelle is trying to show the time 2:30 on her analog clock. Explain where she should place each hand. Then draw a picture.

Michelle is trying to show the time 2:30 on her analog clock. Explain where she should place each hand. T

Michelle is trying to show the time 2:30 on her analog clock. Explain where she should place each hand. T

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Michelle is trying to show the time 2:30 on her analog clock. Explain where she should place each hand. T

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WORD PROBLEM- DAY FIVE

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.

George read the time half past 10 on the clock. Draw a picture to show what his clock looked like.