

Unit
12

GUIDED MATH



1ST
GRADE

GRAPHING & DATA

UNIT RELEASE DATES

These are tentative release dates. Units will be released AROUND these dates.

Unit 1: Review & Intro to Guided Math RELEASED

Unit 2: Number Sense RELEASED

Unit 3: Place Value/Base 10 RELEASED

Unit 4: Addition to 10 RELEASED

Unit 5: Subtraction from 10 RELEASED

Unit 6: Addition Strategies RELEASED

Unit 7: Subtraction Strategies RELEASED

Unit 8: Numbers to 120 RELEASED

Unit 9: Addition & Subtraction w/in 100 RELEASED

Unit 10: Geometry RELEASED

Unit 11: Measurement & Time RELEASED

Unit 12: Graphing and Data RELEASED

Unit 13: Money & Financial Literacy June 8th

GUIDED MATH LESSONS

Lesson Plan

Small Group Instructional Materials

LESSON 3 Tally Marks and Tally Chart

MATERIALS

- Let's Make a Tally Chart by Robin Nelson
- Fun Pets' survey box (turtle, rabbit, bird)
- Fun Pets Tally Chart
- button quantity chart
- variety of buttons with 2, 4, and 6 holes
- math mats
- class set of independent practice pages
- gumball tally chart pieces

OBJECTIVES

- Students will learn about data.
- Students will explore how to collect data.
- Students will organize data using a tally chart.

STANDARDS

Common Core: IM.D.C.4 | TEKS: 1.8 A, B, C

INDEPENDENT PRACTICE

WHOLE GROUP INSTRUCTION:

Review the conversation from yesterday about organizing data. Remind students of the data that they collected yesterday. Show students the turtle, rabbit, and bird survey box. Today students will learn/review tally marks and learn how to organize data using a tally chart. Read Let's Make a Tally Chart by Robin Nelson. Using the Fun Pets Tally Chart and the survey box, show students how to organize their data on the tally chart, making a tally in the correct row for each survey slip. Take the chart to the small-group table to reference during the small-group lesson.

Strategic Intervention | **On-Level** | **Advanced**

Have students come to the table with their gumball machine page that they completed during lesson 1.

Continue the conversation from the whole group session by reviewing the Fun Pets Tally Chart. As a group, analyze the data by talking about how many of each animal there are. Discuss which has the most, which has the least, and if any are the same.

Lay the button collection (a mixture of 2, 4, and 6-hole buttons) on the table. Ask students how they could organize the data. Some students may say by color, by shape, or by number of holes. Place the "Button Sort It" quantity chart down on the table. Have students move the buttons to the correct section on the chart.

1 Hand out the math mats. Students will use their dry-erase markers and math mats to tally the information. At the end of the tally chart, students will count up the total amount for each section and write it in the rectangle. Once all of the students have completed their tally chart, analyze the tally chart. Use the 6 questions in the Foam dice, and have students answer the questions as they are rolled. Clean up the buttons, and have students flip over their math mats.

2 Students will independently complete tally chart a and tally chart b. Students will make a tally mark next to a picture and place an X over the picture so they do not tally that picture again. Once students have completed the tables, they will write the total number in the rectangles. Check in with students and assist/reteach as needed. Also ask questions about their data findings. After students clean off their mat, collect the mats.

Hand out crayons, pencils, scissors, and gumball machine tally charts. Students will use their gumball machine to complete their tally chart. Students will place the tally chart and gumball machine in their safe spot to hand back to the teacher.

Tally It and X It Out

a

b

Furry Friends

cat	
dog	
bunny	

1 Which one has the most?

2 How many are there?

1 Which one has the least?

2 How many are there?

1 Are there any with the same amount?

2 If so, how many are there?

1 What is this chart all about?

2 What is the title of the chart?

1 If you were voting, which would you choose?

2 What are counting marks on the chart called?

2 Tell how tally marks are used.

Button Sort It

2 Holes

4 Holes

6 Holes

Independent Practice

Animals at the Zoo

Directions:

- Look at the pictures.
- Tally the pictures under the Flaps and put an X over the picture.
- Count and write the number of each on the Flaps.

I can organize data on a tally chart.

Hippo		total
Lion		total
Koala		total

Fun Pets-Tally Chart

turtle		total
rabbit		total
bird		total

Day 2 Gumball Machine Fun-Tally Mark Chart

gumball	tally marks	number
pink		
green		
blue		

DIRECTION CARDS

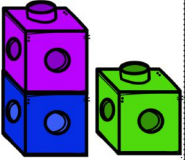
Direction Cards

Math Directions:


1 2

3 4

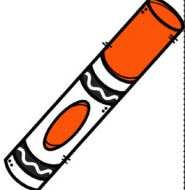
connecting cubes



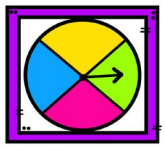
think




marker




spin



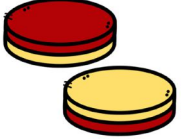
roll dice



tally




counters




Stamina Chart

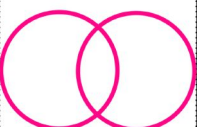
cut lines



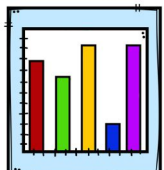
work book




sort




graph




dry erase marker



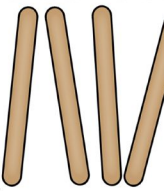
Play-Doh



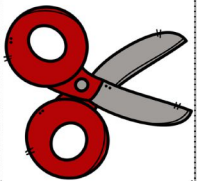
count




sticks



cut




w



Our Station Stamina Chart

Number of Minutes	Days
20	
19	
18	
17	
16	
15	
14	
13	
12	
11	
10	
9	
8	
7	
6	
5	
4	
3	
2	
1	

Math Stations:



students	teacher


PRE & POST ASSESSMENTS

Pre-Assessments

pre-assessment


Name _____ Date _____ Score / 10

1 Circle the type of chart or graph the model shows.



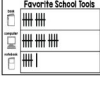
a. tally chart
b. picture graph
c. bar graph

2 Circle the type of chart or graph the model shows.




a. tally chart
b. picture graph

3 Circle the type of chart or graph the model shows.




a. tally chart
b. picture graph
c. bar graph

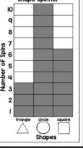
4 What is the title of this picture graph?



6 What is the title of this bar graph? Write the title on the line.

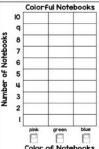


7 Which shape was spun the least?

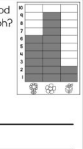


How many times was that shape spun?


8 Bob graphed the color of notebooks of the store. He saw 5 pink notebooks. He saw 8 green notebooks. He also saw 1 blue notebook. Show Bob's graph.





9 What would be a good title for this bar graph?




10 Judy went to a farm. She looked around and made a picture graph of all of the animals she saw. Judy saw 2 pigs, 8 cows, and 5 sheep. Show Judy's picture graph.

A Day at the Farm  = 1 animal

pig 

cow 

sheep 


Standards Addressed: CCSS.MD.C.4 TEKS 18 a, b, c

Post-Assessments

post-assessment


Name _____ Date _____ Score / 10

1 Circle the type of chart or graph the model shows.




a. tally chart
b. picture graph
c. bar graph

2 Circle the type of chart or graph the model shows.




3 Circle the type of chart or graph the model shows.




a. tally chart
b. picture graph
c. bar graph

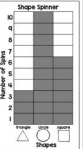
4 What is the title of this picture graph?



6 What is the title of this picture graph? Write the title on the line.

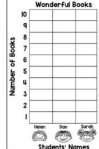


7 Which shape was spun the most?

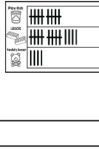


How many times was that shape spun?


8 Mrs. Wallace had 3 students who wanted to have a reading contest. She graphed their books. Helen read 9 books. Dan read 8 books. Sarah read 10 books. Show Mrs. Wallace's graph.





9 What would be a good title for this tally chart?




10 Howie went to a birthday party for his friend Tara. Howie made a picture graph of the people who were at the party. Howie saw 3 babies, 8 kids, and 4 adults. Make Howie's graph below.

Birthday Party Friends  = 1 person

babies 

kids 

adults 

Standards Addressed: CCSS.MD.C.4 TEKS 18 a, b, c

SPIN-ITS MATH STATIONS

15 Spin-Its Math Stations (all stations NOT shown)



Spin It * Tally It * Graph It

- Spin the spinner.
- Mark a tally on the tally chart.
- Repeat steps 1 and 2. Spin **15** times.
- Graph your results on the bar graph.

Spin It * Tally It * Graph It

- Spin the spinner.
- Mark a tally on the tally chart.
- Repeat steps 1 and 2. Spin **15** times.
- Graph your results on the bar graph.

hot dog	6
hamburger	5
pizza	4
fried chicken	3
	2
	1

Total Number: _____

Types of Food: hamburger, pizza, hot dog, fried chicken

Spin It * Graph It * Count It

- Spin the spinner.
- Graph your results on the picture graph. Use the key.
- Repeat steps 1 and 2. Spin **15** times.
- Count up the pictures on the chart and write the total number for each object in each row.

Spin It * Graph It * Count It

- Spin the spinner.
- Graph your results on the picture graph. Use the key.
- Repeat steps 1 and 2. Spin **15** times.
- Count up the pictures on the chart and write the total number for each object in each row.

watermelon	3
pineapple	3
grapes	3
banana	3
	2
	1

Types of Fruit: watermelon, pineapple, grapes, banana

Spin It Graph It Name It

- Spin the spinner.
- Graph your results on the bar graph.
- Repeat steps 1 and 2. Spin **15** times.
- Name the graph.

Spin It Graph It Name It

- Spin the spinner.
- Graph your results on the bar graph.
- Repeat steps 1 and 2. Spin **15** times.
- Name the graph.

baseball	7
soccer ball	6
basketball	5
Football	4
	3
	2
	1

Types of Balls: baseball, soccer ball, basketball, Football

Spin It * Tally It * Graph It * Graph It Again

- Spin the spinner.
- Mark a tally on the tally chart.
- Repeat steps 1 and 2. Spin **15** times.
- Graph your results on the picture graph. Use the key.
- Graph your results on the bar graph.

Spin It * Tally It * Graph It * Graph It Again

- Spin the spinner.
- Mark a tally on the tally chart.
- Repeat steps 1 and 2. Spin **15** times.
- Graph your results on the picture graph. Use the key.
- Graph your results on the bar graph.

rain	4
cloud	3
	2
	1

Types of Weather: sun, rain, cloud

MATH JOURNALS

20 Math Journal Prompts (all journals NOT shown)

1 Answer questions about the picture graph.

Who had the most soda?

How many sodas did Belle have?

Who had more soda, Liz or Stan?

How many more sodas did Tom have than Stan?

Soda Time

Tom	
Liz	
Stan	
Belle	

1 soda pop

Blade gave a survey to his PE class. Blade asked the students their favorite sports. 3 students said golf, 12 students said tennis, and 5 students said baseball. Complete the tally chart and write the title.

Favorite Sports

Tally Marks

Golf	
Tennis	
Baseball	

Count the tallies. How many students did Blade survey in all? students

Favorite Pets

Number of Students

9
8
7
6
5
4
3
2
1
0

Cat Dog Fish Bird

Type of Pet

Leo asked his classmates about their favorite pets. Leo found:

- 5 Friends liked cats best.
- 8 Friends liked dogs best.
- 3 Friends liked fish best.
- 1 Friend liked birds best.

Graph Leo's Findings.

Which pets did Leo's classmates like best?

4 Jackson picked some flowers for his mom. Color the flowers and then graph Jackson's flowers.

Color pink. Color purple. Color blue.

Number of Students

10
9
8
7
6
5
4
3
2
1
0

5 Maisey's class uses a lot of fun writing tools. Maisey wanted to know what her classmates' favorite writing tools were. She took a survey and then graphed her findings. Use Maisey's tally chart to complete her graph.

Favorite Writing Tools

marker	
pen	
crayon	
highlighter	

Favorite Writing Tools

10
9
8
7
6
5
4
3
2
1
0

marker pen crayon highlighter

Writing Tools

1 Answer questions about the picture graph.

Who had the most soda?

How many sodas did Belle have?

Who had more soda, Liz or Stan?

How many more sodas did Tom have than Stan?

Blade gave a survey to his PE class. Blade asked the students their favorite sports. 3 students said golf, 12 students said tennis, and 5 students said baseball. Complete the tally chart and write the title.

Favorite Sports

Tally Marks

Golf	
Tennis	
Baseball	

Count the tallies. How many students did Blade survey in all? students

Favorite Pets

Number of Students

9
8
7
6
5
4
3
2
1
0

Cat Dog Fish Bird

Type of Pet

4 Jackson picked some flowers for his mom. Color the flowers and then graph Jackson's flowers.

Color pink. Color purple. Color blue.

Number of Students

10
9
8
7
6
5
4
3
2
1
0

5 Maisey's class uses a lot of fun writing tools. Maisey wanted to know what her classmates' favorite writing tools were. She took a survey and then graphed her findings. Use Maisey's tally chart to complete her graph.

Favorite Writing Tools

marker	
pen	
crayon	
highlighter	

Favorite Writing Tools

10
9
8
7
6
5
4
3
2
1
0

marker pen crayon highlighter

Writing Tools

6 Nicole went to a picnic and made a tally chart about the fruit at the picnic. Answer questions about the tally chart.

What fruit did Nicole see the most?

How many pineapples did Nicole see?

What fruit did Nicole see the least?

How many pieces of fruit did Nicole see in all?

Fruit at the Picnic

apple	
orange	
banana	
grape	
strawberry	
peach	
pineapple	

What is the title of this tally chart?

7 Malory went to a pet shop. She saw 5 turtles, 10 hamsters, and 4 fish. Complete the tally chart to show what Malory saw. Then write the number of pets she saw.

Pet Shop

Tally Marks

Turtles	
Hamsters	
Fish	

Count the tallies. How many pets did Malory see in the pet shop in all? pets

Miss Sarah took a survey of her preschool. She wanted to know what the kids' favorite toys were. She made a graph. Answer questions about Miss Sarah's graph.

Which toy did the kids like the most?

How many kids like the most?

Which toys had the same number of kids?

What is the title of this graph?

Favorite Toys

10
9
8
7
6
5
4
3
2
1
0

blocks ball toy car

Types of Toys

Miss Sarah took a survey of her preschool. She wanted to know what the kids' favorite toys were. She made a graph. Answer questions about Miss Sarah's graph.

Which toy did the kids like the most?

How many kids like the most?

Which toys had the same number of kids?

What is the title of this graph?

Favorite Toys

10
9
8
7
6
5
4
3
2
1
0

blocks ball toy car

Types of Toys

9 Braxton went to the pet store for his dog. He got:

- 3 dog bones
- 4 dog toys
- 2 bags of food

1. Graph Braxton's pet store items.

2. How many pet store items did Braxton get?

3. What would be a good title for this graph?

Favorite Pets

10
9
8
7
6
5
4
3
2
1
0

bone toy bag of food

Types of Pet Supplies

10 Mr. Ellis collected data about the students in his class. He wanted to know about his students' favorite pets. Use the graph below to answer the questions.

Which pet did the students like most?

Which pet did the students like the least?

Favorite Pets

10
9
8
7
6
5
4
3
2
1
0

Cat Dog Fish Bird

Type of Pet

10 Mr. Ellis collected data about the students in his class. He wanted to know about his students' favorite pets. Use the graph below to answer the questions.

Which pet did the students like most?

Which pet did the students like the least?

Favorite Pets

10
9
8
7
6
5
4
3
2
1
0

Cat Dog Fish Bird

Type of Pet

11 George went bird watching. Color the birds that George saw and then graph George's birds.

Color the Flamingo pink. Color the peacock blue. Color the eagle brown.

Number of Students

10
9
8
7
6
5
4
3
2
1
0

11 George went bird watching. Color the birds that George saw and then graph George's birds.

Color the Flamingo pink. Color the peacock blue. Color the eagle brown.

Number of Students

10
9
8
7
6
5
4
3
2
1
0

Russell went to the zoo. He saw 8 zebras, 6 elephants, 7 giraffes, and 2 lions. Use the key and make Russell's picture graph.

Zoo Trip Animal Sightings

zebra	
elephant	
giraffe	
lion	

Which animal did Russell see the most?

Did Russell see more giraffes or lions?

How many zebras and lions did Russell see?

Russell went to the zoo. He saw 8 zebras, 6 elephants, 7 giraffes, and 2 lions. Use the key and make Russell's picture graph.

Zoo Trip Animal Sightings

zebra	
elephant	
giraffe	
lion	

Which animal did Russell see the most?

Did Russell see more giraffes or lions?

How many zebras and lions did Russell see?

ADDITIONAL MATERIALS

Binder Spine Labels

Unit 5
SUBTRACTION FROM 10

Unit 4
ADDITION TO 10

Unit 3
PLACE VALUE / BASE 10

Unit 2
NUMBER SENSE 1-30

Unit 10
GEOMETRY 2D & 3D SHAPES

Unit 9
ADDITION & SUBTRACTION

Unit 8
NUMBERS TO 120

Unit 7
SUBTRACTION STRATEGIES TO 20

Unit 6
ADDITION STRATEGIES TO 20

Unit 13
FINANCIAL LITERACY

Unit 12
GRAPHING & DATA

Unit 11
MEASUREMENT & TIME

Editable Lesson Plan

LESSON		
Materials	Objectives	Standards
		Independent Practice
Whole Group Instruction		
Strategic Intervention	On-Level	Advanced

Editable Journal Labels

Carlo's Math Journal

Ariana's Math Journal

UNIT OVERVIEW

Unit Number and Number of Days	Name of Unit	Skills	Common Core Standards	Texas Standards	Florida Standards
Unit # 12 10 days	Graphing/Data	<ul style="list-style-type: none"> • collecting data • tally marks • picture graphs • bar graphs • drawing conclusions • comparing • how many more • labeling a graph 	<p>Represent and interpret data. CCSS.Math.Content.1.MD.C.4</p> <p>Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another</p>	<p>(8) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:</p> <p>(A) collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;</p> <p>(B) use data to create picture and bar-type graphs; and</p> <p>(C) draw conclusions and generate and answer questions using information from picture and bar-type graphs.</p>	<p>MAFS.1.MD.3.4</p> <p>Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another</p>