



# Preview - Information



Thank you for your interest in this product. Within this preview, you will see:

- ✓ A selection of Ready-To-Use Google Slides Lessons.
- ✓ A selection of worksheets included in the workbook.

When you make a purchase, you will receive a folder that contains the .pdf workbook file and a link to where you can make a copy of the Google Slides Lessons unit to your Google Drive.

Thank you for shopping with us. Please let us know if you have any questions at:

[rob@supersimplesheets.com](mailto:rob@supersimplesheets.com)



# Google Slides Lessons Preview





# Alberta Math Curriculum Statistics – Grade 2

## 3-Part Lesson Format

### Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

### GENERATING QUESTIONS

#### Learning Goal

We are learning to **create clear questions** that match a **survey goal**, so we can **collect the right information**, **organize our data**, and **understand what our results show**.



### CREATING CATEGORIES



When we ask a survey question, we should predict the most popular answers to give as options. We can include an "other" category if there are lots of options for answers. Place an "x" on each option that would not be a good choice if you were to ask your classmates.



Questions – What is your favourite...	Categories				
1) season?	Spring	Fall	Winter	Summer	Other
2) pet?	Lion	Dog	Cat	Fish	Other
3) food?	Pizza	Pasta	Ice Cream	Broccoli	Other
4) place to visit?	Park	Beach	Zoo	Moon	Other
5) drink?	Coffee	Water	Milk	Soda	Other
6) fruit?	Apple	Banana	Carrot	Grapes	Other

### Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

### Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

### GENERATING QUESTIONS

One student comes to the front and asks the class a question. Count and record the responses in the table provided. Repeat the process again.



Questions	Category	Tally	Frequency
What is your favourite snack?			
What do you like to do at recess?			
What is your favourite season?			
What pet would you like to have?			
What is your favourite pizza topping?			
What is your favourite cartoon?			
What is your favourite toy?			



# Alberta Math Curriculum Statistics - Grade 2

## TALLY MARKS

Drag the tally marks that match the # of students in the table.

Ways of getting to school	# of Students	Tally
Walking	7	
Car	16	
Bus		
Bike		

## LINE PLOT

Answer the questions and fill the tally and frequency table from the line plot.

1 2 3 4 5 6 7 8 9 0

Reading Drawing Gaming Playing Outside

1) Which hobby was chosen by the fewest students?

2) How many more students chose gaming than reading?

## PICTOGRAPHS

Create a pictograph based on the data below.

Students in a class counted how many paper airplanes they flew across the classroom during an activity.

Name	# Of Paper Airplanes
Zoe	4
Harry	6
Ryan	3
Lily	5
Mark	6

# Paper Airplanes Flown

Zoe	
Harry	
Ryan	
Lily	
Mark	

Questions

1) How many <b>more</b> airplanes did Mark fly than Zoe?	
2) How many <b>paper</b> airplanes in total were flown?	
3) What number is the <b>mode</b> ?	


= 1 Paper Airplane



# Alberta Math Curriculum Statistics - Grade 2


## PICTOGRAPHS


Answer the questions about the graph.



**Apples Collected**

Student	Apples
Maya	3
Olivia	5
Ethan	2
Ben	4
Sophia	3

Each  is 1



**1 2 3 4 5 6 7 8 9 0**

- 1) How many apples did **Ben and Sophia** collect altogether?
- 2) How many apples did **Maya** collect?
- 3) How many **more apples** did **Olivia** collect than **Ethan**?
- 4) What is the mode?

## BAR GRAPHS

Answer the questions about the graph.



**Favourite Holidays**

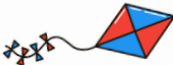
Holiday	Number of Votes
Halloween	15
Thanksgiving	20
Christmas	5
Canada Day	10

**1 2 3 4 5 6 7 8 9 0**

- 1) Which holiday was chosen by the most by students?
- 2) How many students chose Halloween and Thanksgiving together?
- 3) How many more students chose Christmas than Canada day?
- 4) What is the mode of the data?

## BAR GRAPHS

Look at the data about grade 2 students' favourite seasons and answer the questions.



**Favourite Season**

Season	Votes
Spring	10
Autumn	12
Winter	8
Summer	14

**1 2 3 4 5 6 7 8 9 0**

- 1) Which season was the least chosen by the students?
- 2) What is the difference between the number of students who chose Spring and Summer?
- 3) What is the mode of the data?
- 4) How many more students liked Autumn than Winter?
- 5) How many students chose their favourite season in total?

Summer

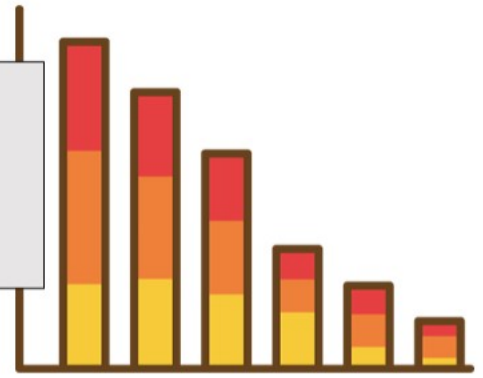
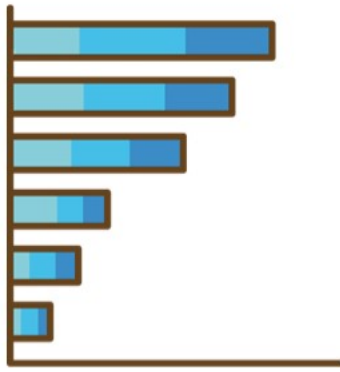
Winter

Autumn

Spring

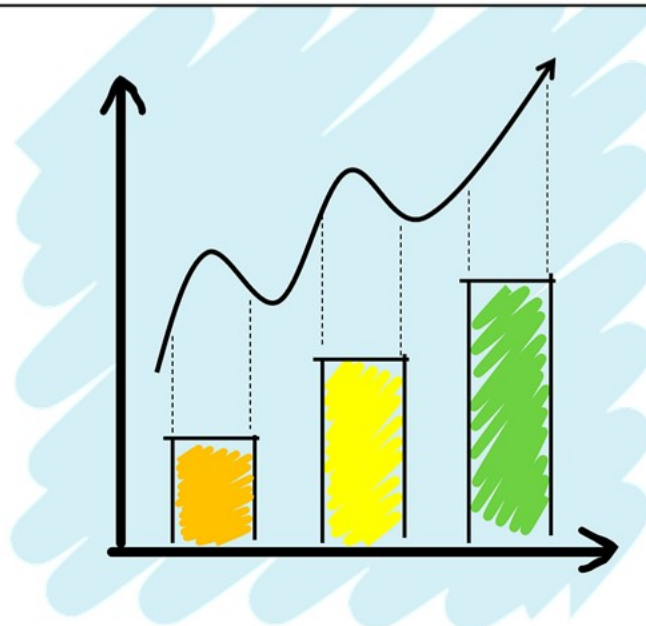
# Grade 2

## Statistics



	Curriculum Expectations	Pages
S.1	<p><u>Students relate data to a variety of representations.</u></p> <ul style="list-style-type: none"><li>• Generate questions for a specific investigation within the learning environment.</li><li>• Collect first-hand data by questioning people</li></ul>	68
	<ul style="list-style-type: none"><li>• Compare the features of pictographs, dot plots, and bar graphs.</li></ul>	

**Preview of 60 pages from this product that contains 108 pages total.**



Name: \_\_\_\_\_

5

# Creating Questions



## Practice

Create questions you could ask your class

### Word Bank – Ideas

TV Show	Sport	Movie	Food	Drink
Colour	Animal	Video Game	Subject	YouTube Channel

**PREVIEW**

	Question
1)	What is your favourite _____
2)	What is your favourite _____
3)	What is your favourite _____
4)	What is your favourite _____
5)	What is your favourite _____

# Creating Questions

## Practice

Write 4 options for the survey questions below

1) How did you get to school today?

a)

c)

d)

2) What is your favourite sport?

a)

b)

c)

d)

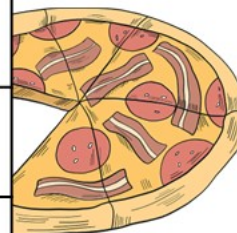
3) What is your favourite food?

a)

b)

c)

d)



**PREVIEW**

# Creating Questions

## Practice

Write 4 options for the survey questions below

1) What is the best subject in school?

- a) Math
- b) Scien
- c) Gym
- d) A

2) How did you get to school today?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

3) What is your favourite sport?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

4) What is your favourite fast food?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

5) What is your favourite pizza topping?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

6) What is the best type of music?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

7) What time do you go to bed at?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

8) What kind of ice cream is the best?

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_



# Creating Questions

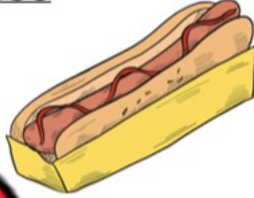


## Practice

Write a question and 4 options for answers

1) What is your favourite food?

- a) Macaroni and Cheese
- b) Pizza
- c) Hot Dog
- d) Sandwich



**PREVIEW**

2)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

3)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

# Yes/No Survey Questions



## Practice

Write 5 questions below using yes/no answers

### Word Bank - Ideas

TV Show	Sport	Movie	Food	Drink
Cartoon	Game	Video Game	Subject	YouTube Channel

**PREVIEW**

	Example: Do you like pizza?
1)	
2)	
3)	
4)	
5)	

# Tally Marks

= 1	= 2	= 3	= 4	/ = 5
/   = 6	/    = 7	/     = 8	/      = 9	/     / = 10

## Part 1 Count the tally marks

_____	/	/	
_____	_____	_____	_____
/	/     /	/     /	/     /     /
_____	_____	_____	_____

## Part 2 Draw tally marks that match the number

4 =	8 =	_____
13 =	17 =	20 =
27 =	32 =	_____

## Part 3 Which is greater? Use the < > or =

9 _____     /	11 _____     /     /	16 _____     /     /     /
---------------	----------------------	----------------------------

## Activity Title: Tally Up the Fun!

### Objective

What are we learning about?

Students will practice counting and creating tally marks through a fun and interactive game.

### Materials

What you will need for the activity.

- Dice (one for each group)
- Whiteboard or sheet of paper
- Markers



### Instructions

How you will complete the activity.

1. Divide the class into small groups of 3-4 students.
2. Provide each group with a dice and a whiteboard or sheet of paper.
3. Explain to the students that they will be rolling the dice and creating tally marks to represent the number they rolled.
4. For each round, each student will roll the dice. After one student rolls, write the tallies on the next page. Continue for the other group members.
5. After creating the tally marks for one round, the group will count them aloud to ensure they have the correct number.
6. Repeat steps 3-5 for a predetermined number of rounds (e.g., 10 rounds).
7. At the end of the activity, have each group share their tally mark totals and discuss any observations or patterns they noticed.

Name: \_\_\_\_\_

14

**Record Sheet**

Record your result in the table below.

Round	Tally Marks	Total Count
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total Tallies		


**PREVIEW**


# Exit Cards


**Cut Out** Cut out the exit cards below and have students complete them at the end of class


Name: \_\_\_\_\_

Which is greater? Use the < > or =

1)  \_\_\_\_\_ 8


2) 13 \_\_\_\_\_ 


3)  \_\_\_\_\_ 18


4) 21 \_\_\_\_\_ 


Name: \_\_\_\_\_

Which is greater? Use the < > or =

1)  \_\_\_\_\_ 8


2) 13 \_\_\_\_\_ 


3)  \_\_\_\_\_ 18


4) \_\_\_\_\_ 

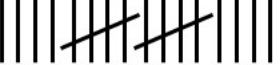
Name: \_\_\_\_\_

Which is greater? Use the < > or =

1)  \_\_\_\_\_ 8


2) 13 \_\_\_\_\_ 


3)  \_\_\_\_\_ 18

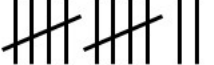
4) 21 \_\_\_\_\_ 


Name: \_\_\_\_\_

Which is greater?

1)  \_\_\_\_\_ 8

2) 13 \_\_\_\_\_ 

3)  \_\_\_\_\_ 18

4) 21 \_\_\_\_\_ 

# Tally Marks – Favourite Music



## Part 1

Fill in the tally table below

Favourite Music of Grade 2 Students		
Music Genres	Tallies	Frequency
Pop		
Jazz		6
Country		
Rap/Hip-Hop		
Rock		20

## Part 2

Answer the questions below

1) Which music genre is the most popular?	
2) Which music genre is the least popular?	
3) How many more students voted for pop than jazz?	
4) How many grade 2 students were surveyed?	

# Tally Marks – Favourite Treat



## Part 1

Fill in the tally table below

Favourite Treat		
Treat	Tallies	Frequency
 Donut		
 Brownie		11
 Ice Cream		
 Cake		9
 Chocolate		

## Part 2

Answer the questions below

1) Which treat is the most popular?	
2) Which treat is the least popular?	
3) How many more people like ice cream than cake?	
4) Put the treats in order from least popular to most popular.	
<hr/> <hr/>	

# Exit Cards

**Cut Out** Cut out the exit cards below and have students complete them at the end of class

Name: \_\_\_\_\_

Fill in the tally table below

Favourite Food		
Food	Tallies	Frequency
Pizza		
Tacos		17
Hot Dog		7
Sandwich		
Burgers		14

Name: \_\_\_\_\_

Fill in the tally table below

Favourite Food		
Food	Tallies	Frequency
Pizza		
Tacos		17
Hot Dog		7
Sandwich		
Burgers		14

Name: \_\_\_\_\_

Fill in the tally table below

Favourite Food		
Food	Tallies	Frequency
Pizza		
Tacos		17
Hot Dog		7
Sandwich		
Burgers		14

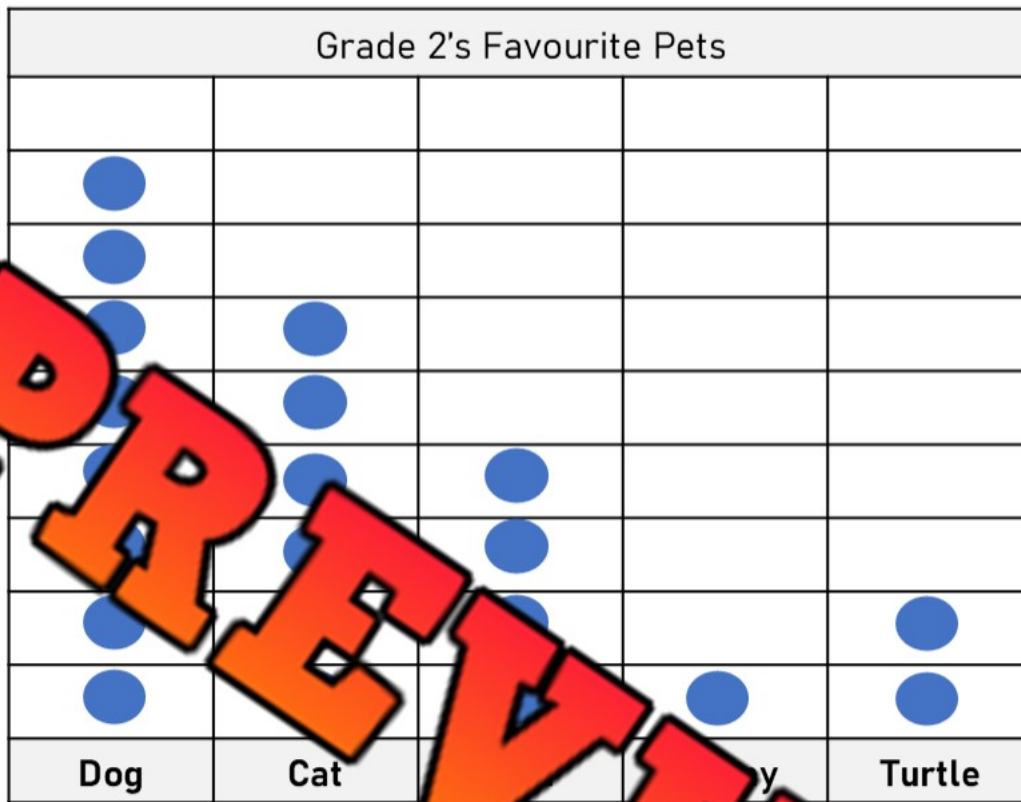
Name: \_\_\_\_\_

Fill in the tally table below

Favourite Food		
Food	Tallies	Frequency
Pizza		
Tacos		17
Hot Dog		7
Sandwich		
Burgers		14



# Reading a Line Plot - Pets



PREVIEW

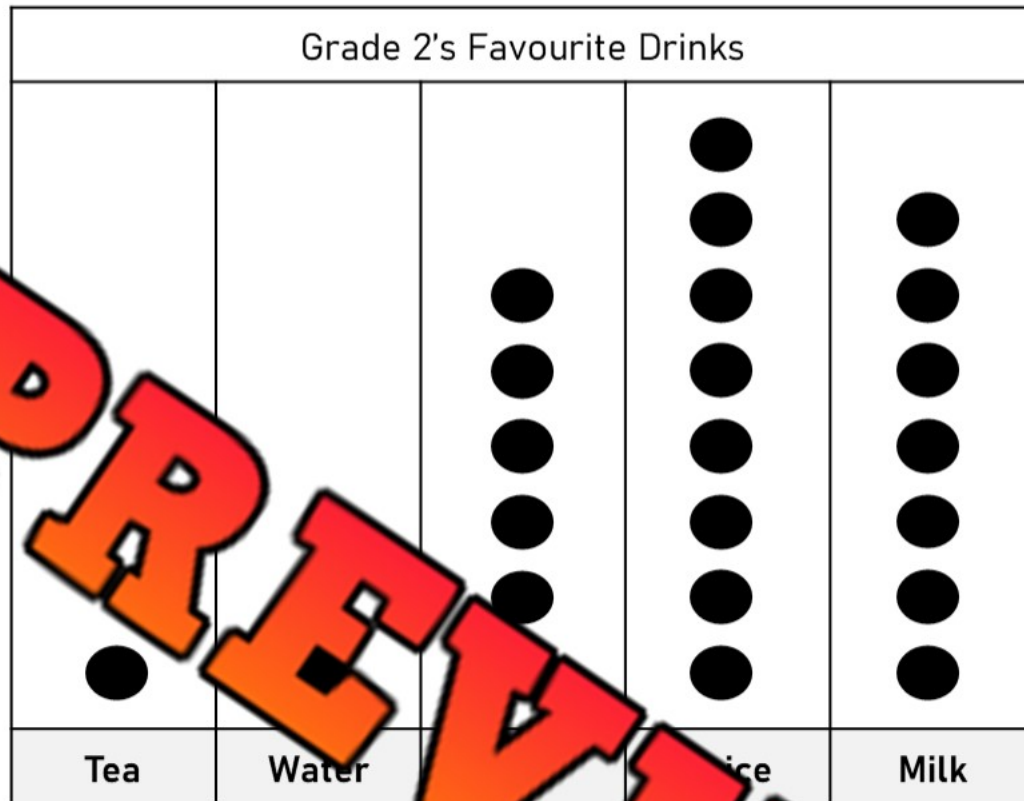
Pet	Dog	Cat	Bunny	Turtle
Frequency				

**Questions**

Read the line plot and answer the questions

- a) Which pet was the most popular?
  - b) Which pet was the least popular?
  - c) How many total people were asked the survey question?
  - d) How many more people like dogs than bunnies?
  - e) Put the pets in order of most popular to least popular.
- 
-

## Reading a Line Plot - Drinks



Drink	Tea	Water	Juice	Milk
Frequency				

### Questions

Read the line plot and answer the questions

- a) Which drink was the most popular?
- b) Which drink was the least popular?
- c) How many total people were asked the survey question?
- d) Put the drinks in order of most popular to least popular.

---



---

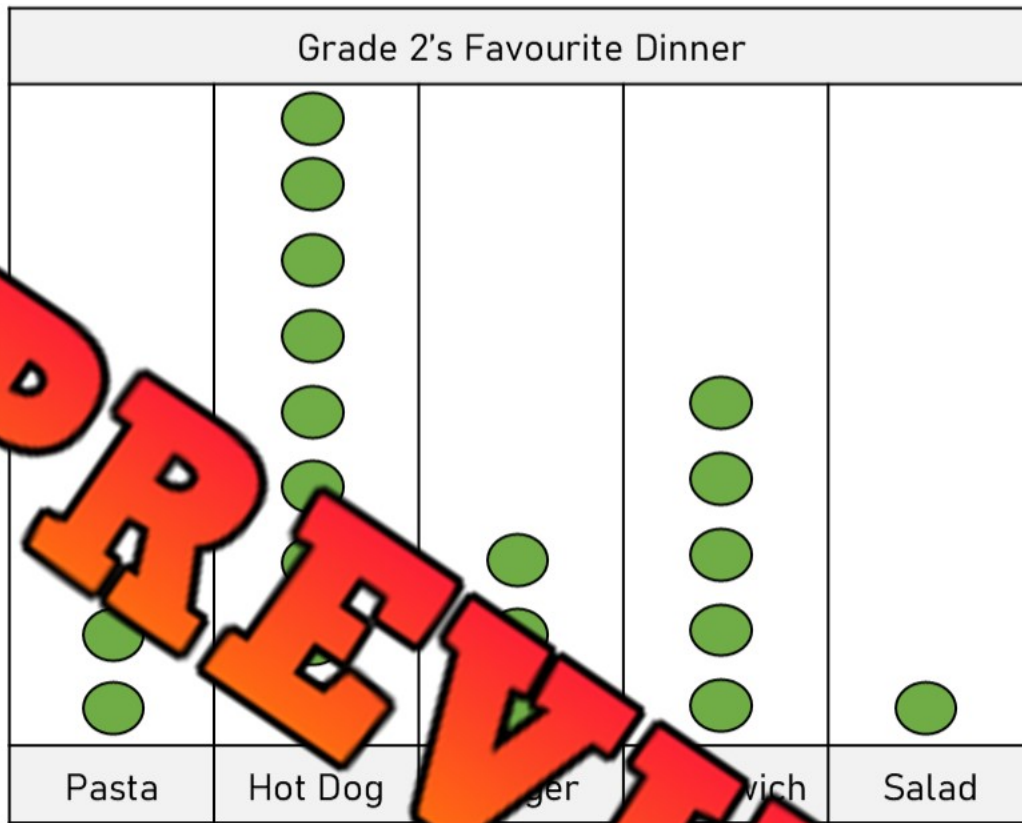


---



---

# Reading a Line Plot – Favourite Dinner



PREVIEW

Dinner	Pasta	Hot Dog	Burger	Sandwich	Salad
Frequency					

## Questions

Read the line plot and answer the questions

- Which dinner was the most popular?
- Which dinner was the least popular?
- How many total people were asked the survey question?
- How many more people like hot dogs than salad?
- Put the dinner options in order of least popular to most popular.

---



---



---

# Exit Cards

**Cut Out** Cut out the exit cards below and have students complete them at the end of class

Name: \_\_\_\_\_

Read the line plot and answer the questions

Favourite Sport			
			○
			○
			○
			○
Soccer	Baseball	Hockey	

Dinner	Soccer	Baseball	Hockey
Frequency			

Name: \_\_\_\_\_

Read the line plot and answer the questions

Grade 2's Favourite Sport			
			○
			○
○			○
○			○
○			○
Soccer	Baseball	Hockey	

Dinner	Soccer	Baseball	Hockey
Frequency			

Name: \_\_\_\_\_

Read the line plot and answer the questions

Grade 2's Favourite Sport			
			○
			○
			○
			○
			○
Soccer	Baseball	Hockey	

Dinner	Soccer	Baseball	Hockey
Frequency			

Name: \_\_\_\_\_

Read the line plot and answer the questions

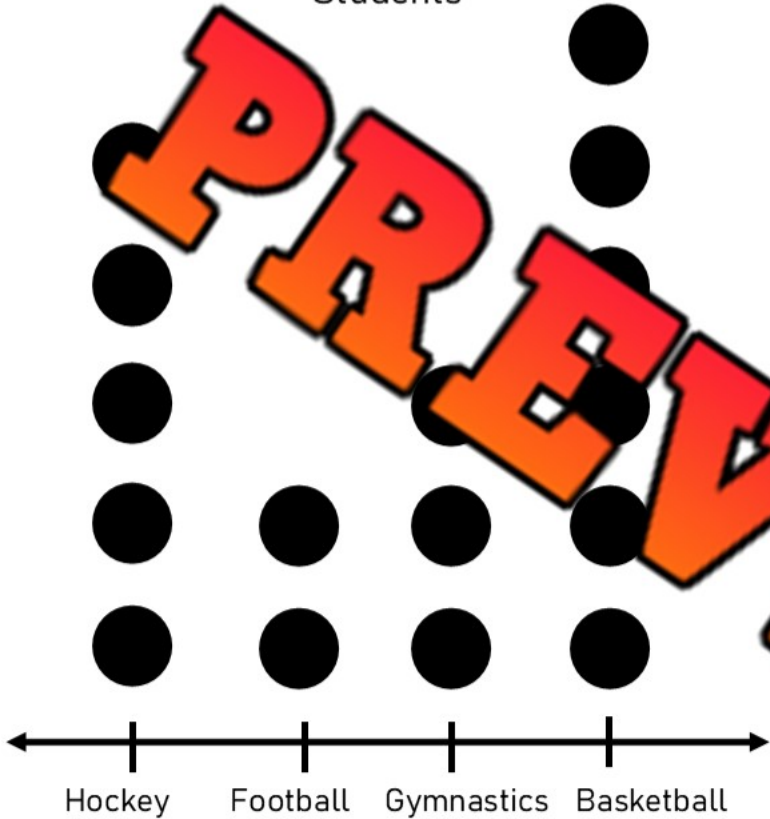
Grade 2's Favourite Sport			
			○
			○
			○
○			○
○			○
○			○
Soccer	Baseball	Hockey	

Dinner	Soccer	Baseball	Hockey
Frequency			

# Reading a Line Plot – Favourite Sport

**Part 1** Read the line plot below and answer the questions

Favourite Sport of Grade 3 Students

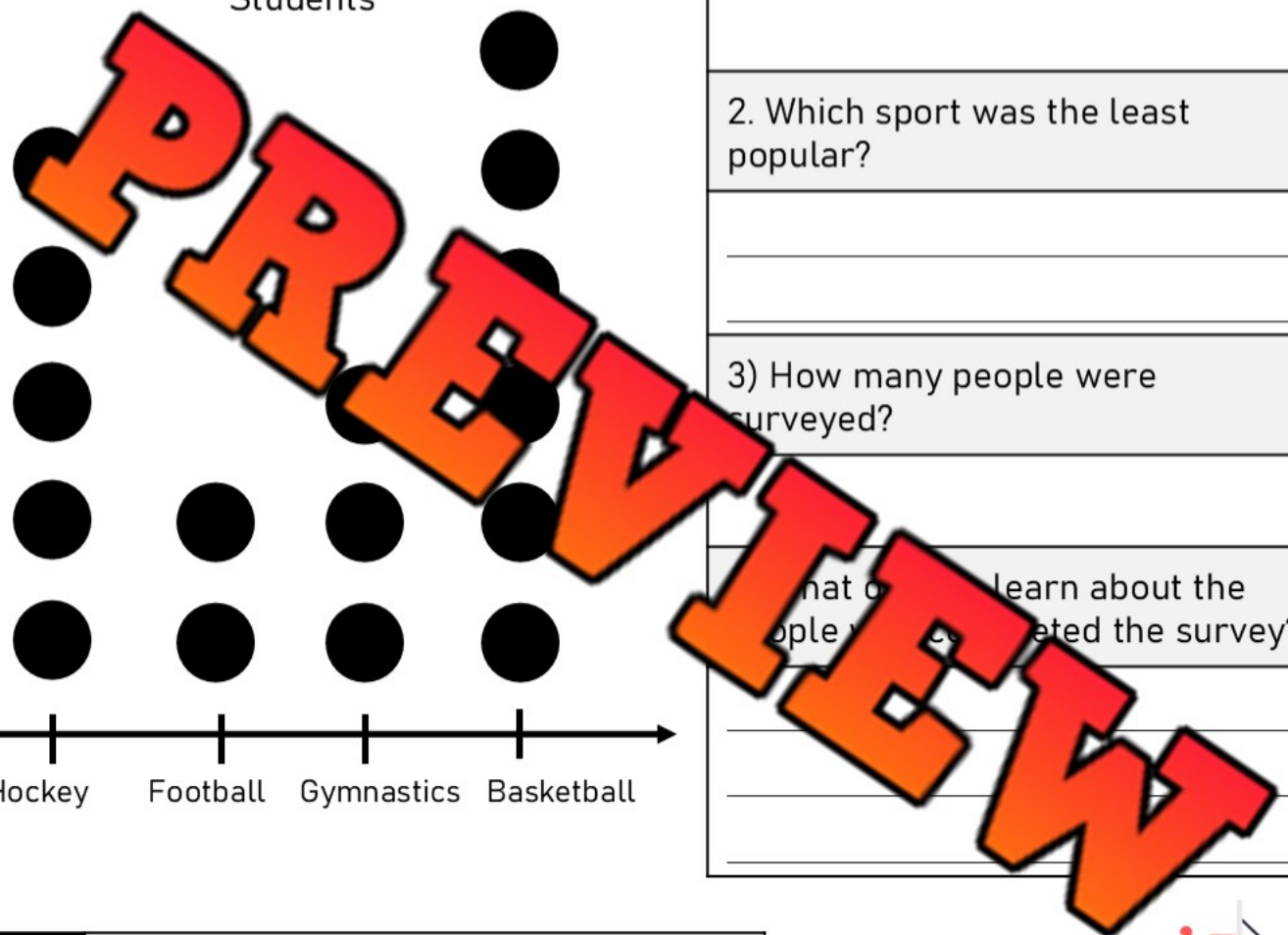


1) Which sport was the most popular?  
\_\_\_\_\_

2) Which sport was the least popular?  
\_\_\_\_\_  
\_\_\_\_\_

3) How many people were surveyed?  
\_\_\_\_\_

4) What do you learn about the people who completed the survey?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Part 2** Fill in the frequency table below



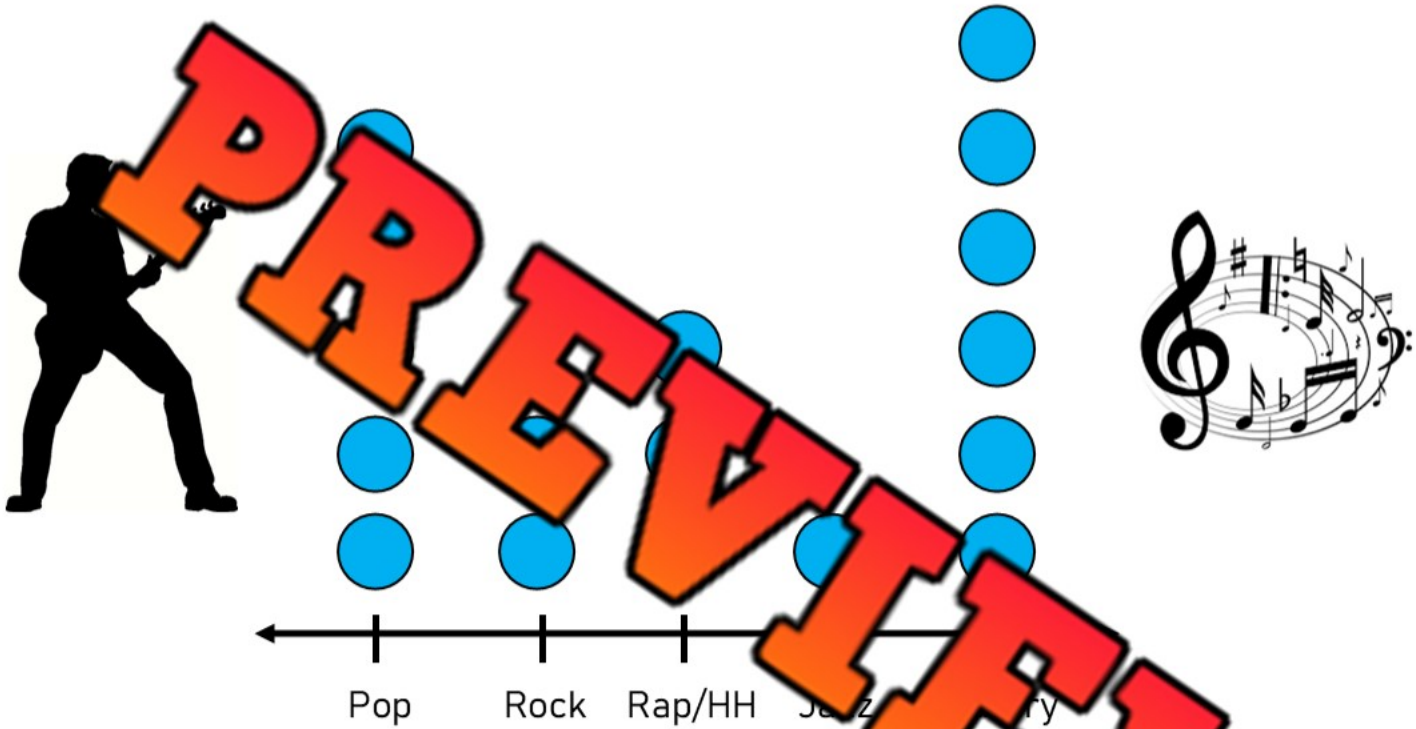
Category	Hockey	Football	Gymnastics	Basketball
Tally				
Frequency				

# Reading a Line Plot – Music Genres

## Part 1

Read the line plot below and answer the questions

An online survey asked people what their favourite music genre is. The results have been displayed below in a line plot.



## Part 2

Fill in the frequency table below

Category	Pop	Rock	Rap/Hip Hop	Jazz	Country
Tally					
Frequency					

1) Which genre of music is the most popular? \_\_\_\_\_ Least popular: \_\_\_\_\_

2) How much more popular is country than rock? \_\_\_\_\_

3) How many people were surveyed? \_\_\_\_\_



# Creating a Line Plot - Hobby

## Questions

Survey your class and use the data in a line plot

**Survey Question:** What is your favourite hobby?

**Instructions** – Use tally marks to record the answer to the survey question.

Category	Reading	Computer	Gaming	Playing Outside
Tally				
Frequency				

Title: \_\_\_\_\_

Reading	Computer	Gaming	Playing Outside

Name: \_\_\_\_\_

# Creating a Line Plot

## Questions

Survey your class and use the data in a line plot

Survey Question: \_\_\_\_\_  
\_\_\_\_\_

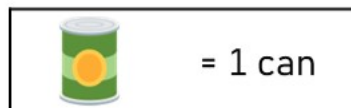
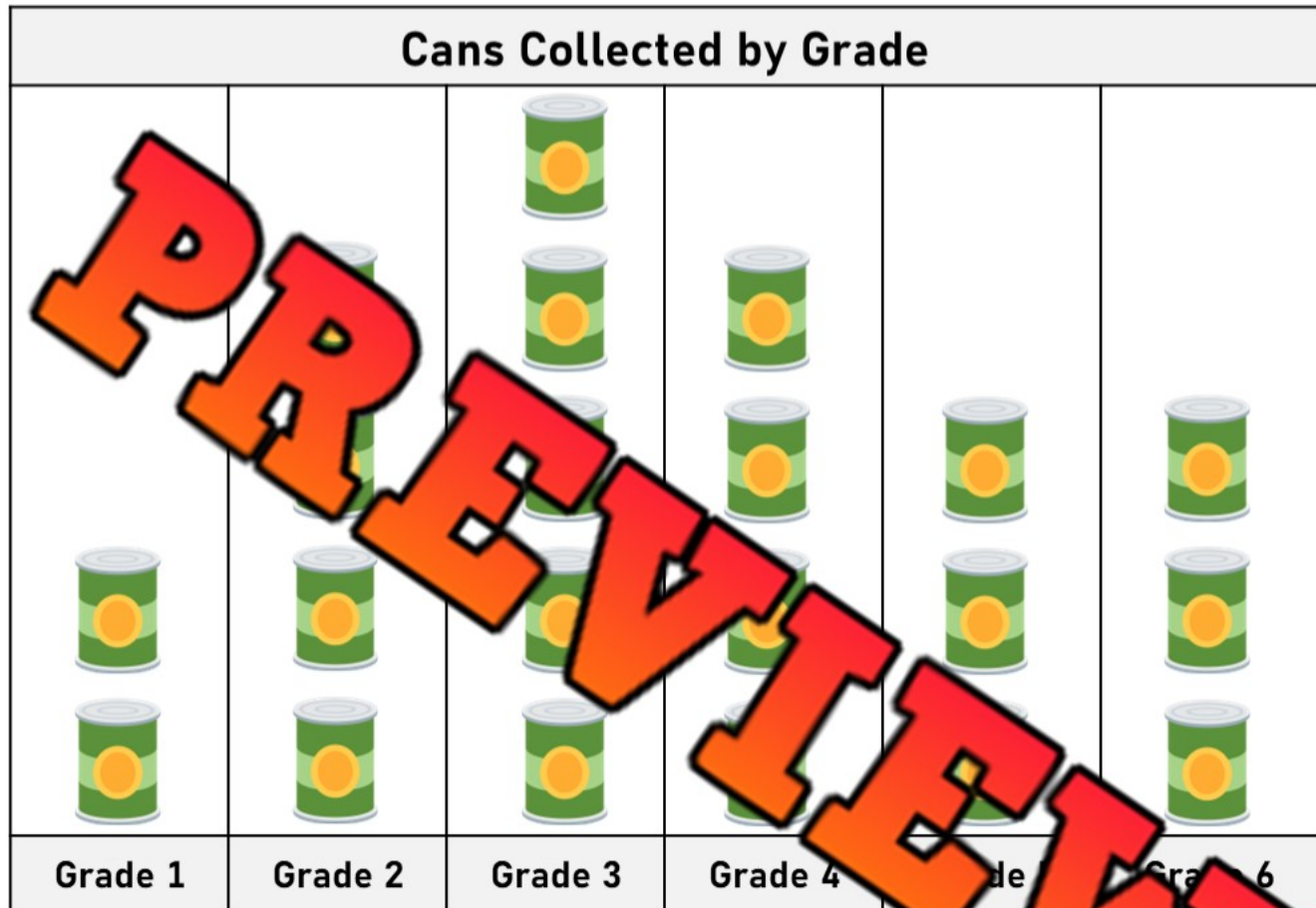
Category				
Frequency				

Title: \_\_\_\_\_




## Vertical Pictograph – Canned Food

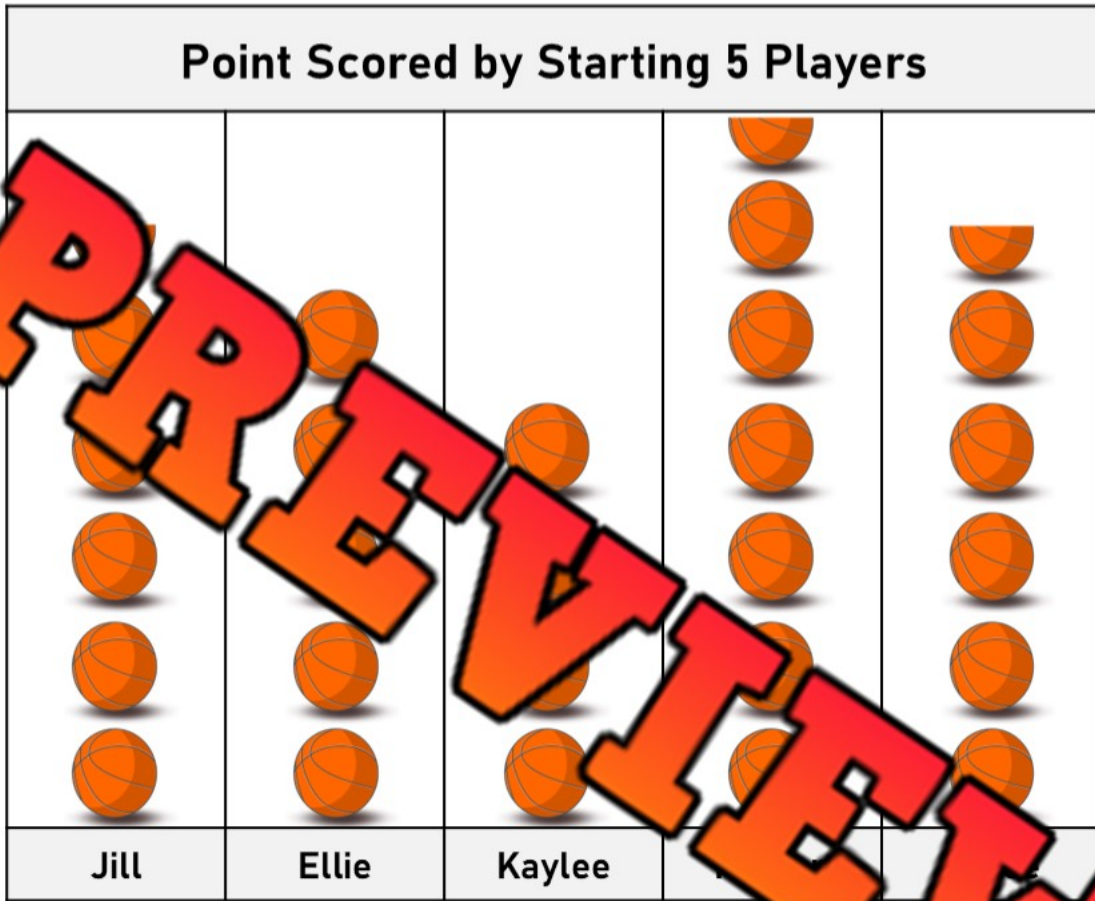
Maplewood Public School had a canned food drive last month. The students in each class brought in cans of food. The totals for each grade are displayed below in the pictograph.




- |  |  |
|--|--|
| a) How many cans is one picture worth?                               |  |
| b) Which class brought the most number of cans?                      |  |
| c) How many total cans were brought in at Maplewood Public school?   |  |
| d) How many more cans did the grade 3's bring in than the grade 6's? |  |
| e) How many more cans did the grade 4's need to win?                 |  |

# Vertical Pictograph – Basketball Points

Grace's basketball team counted how many points each of the players scored in a tournament. The point totals for the starting 5 are displayed below in a pictograph.



 = 2 points

PREVIEW

- |   |  |
|---|--|
| a) How many points is half a basketball worth?  |  |
| b) Who scored the most points in the tournament?  |  |
| c) How many total points did all 5 girls score?   |  |
| d) How many more points did Jill score than Ellie?  |  |
| e) Put the players in order of who scored the least to who scored the most.   |  |
| <hr style="border: 0; border-top: 1px solid black; margin-bottom: 10px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 10px;"/> <hr style="border: 0; border-top: 1px solid black;"/> |  |

## Activity Title: Flip the Data

### Objective

What are we learning about?

Students will engage in a fun and active game where they read data from a pictograph and answer questions to earn the opportunity to flip a bottle or cup.

### Materials

What you will need for the activity.

- Flip caps/bottles for flipping
- A smartboard or projector to display bar graphs
- Timer (stopwatch or stopwatch app)
- Question cards with questions on the graph data
- Scoreboard to track successful flips



### Instructions

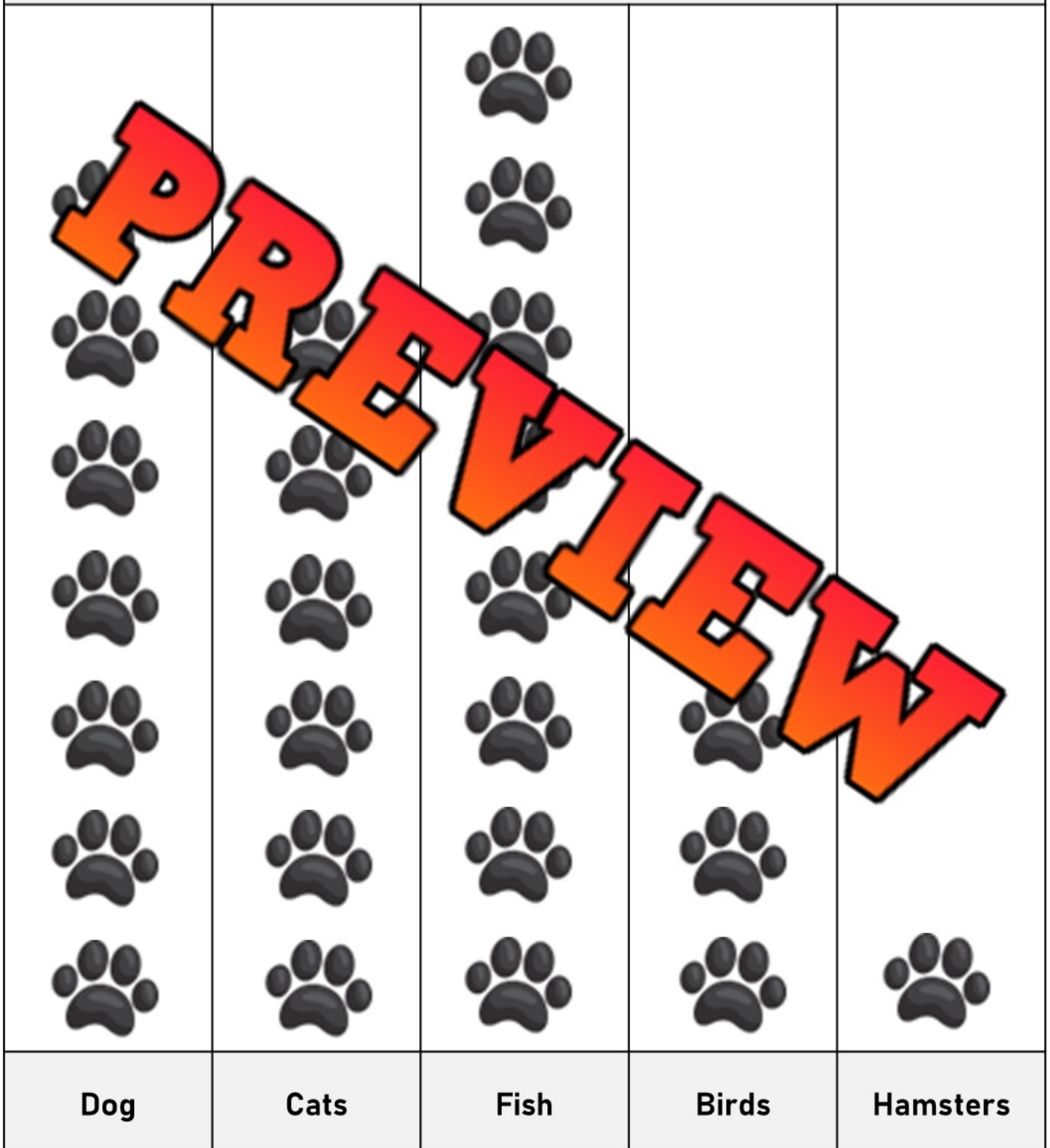
How you will complete the activity.

1. Divide the class into small teams, ideally of 5 or 6 students each.
2. Prepare a series of pictographs to display on a smartboard or projector with corresponding question cards that ask about the data in the graph.
3. One team at a time comes to the front where the graph is displayed.
4. Display the first pictograph on the smartboard.
5. The first student from the active team reads the graph and selects a question card. Start the timer when the question is first shown.
6. The student answers the question based on the data presented in the graph. The teacher checks the answer.
7. If the student answers correctly, they flip their bottle or cup repeatedly until they land it upright. When they do, the next teammate can take their turn.
8. If the student's answer is incorrect, they must try another question card before they can attempt to flip.
9. The team's turn ends either when all members have successfully flipped their bottle/cup or when the timer reaches a set limit (e.g., 3 minutes).
10. Record the team's time or number of successful flips on the scoreboard.
11. Repeat steps 4-10 for each team. The team with the fastest time/most flips wins.

Graph 1

What did you learn from the pictograph?

Number of Pets Owned by Students

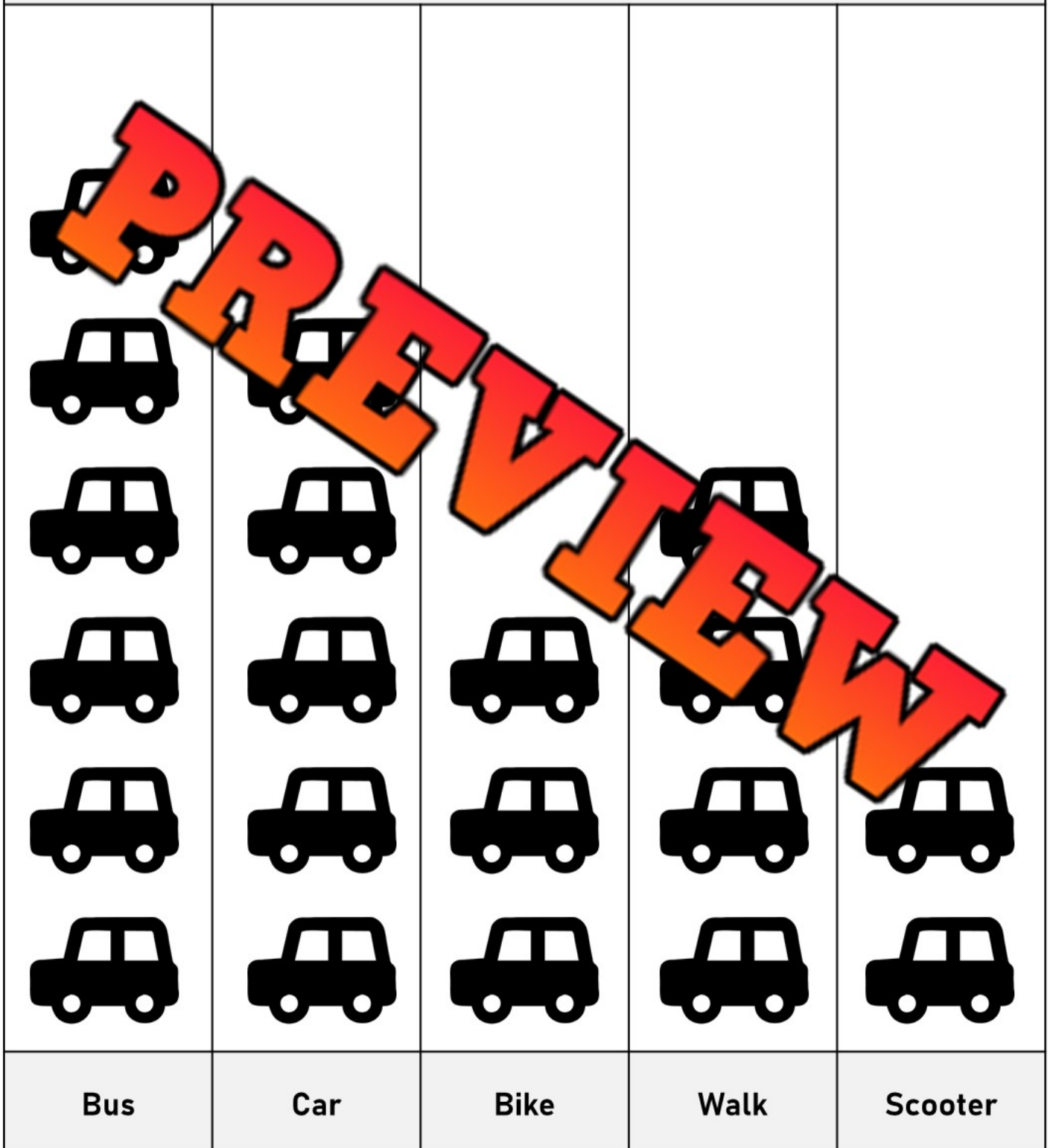


**PREVIEW**

Graph 2

What did you learn from the pictograph?

How Students Get to School



Graph 3

What did you learn from the pictograph?

What Students Did Over the Weekend



Playing Sports

Reading

Watching TV

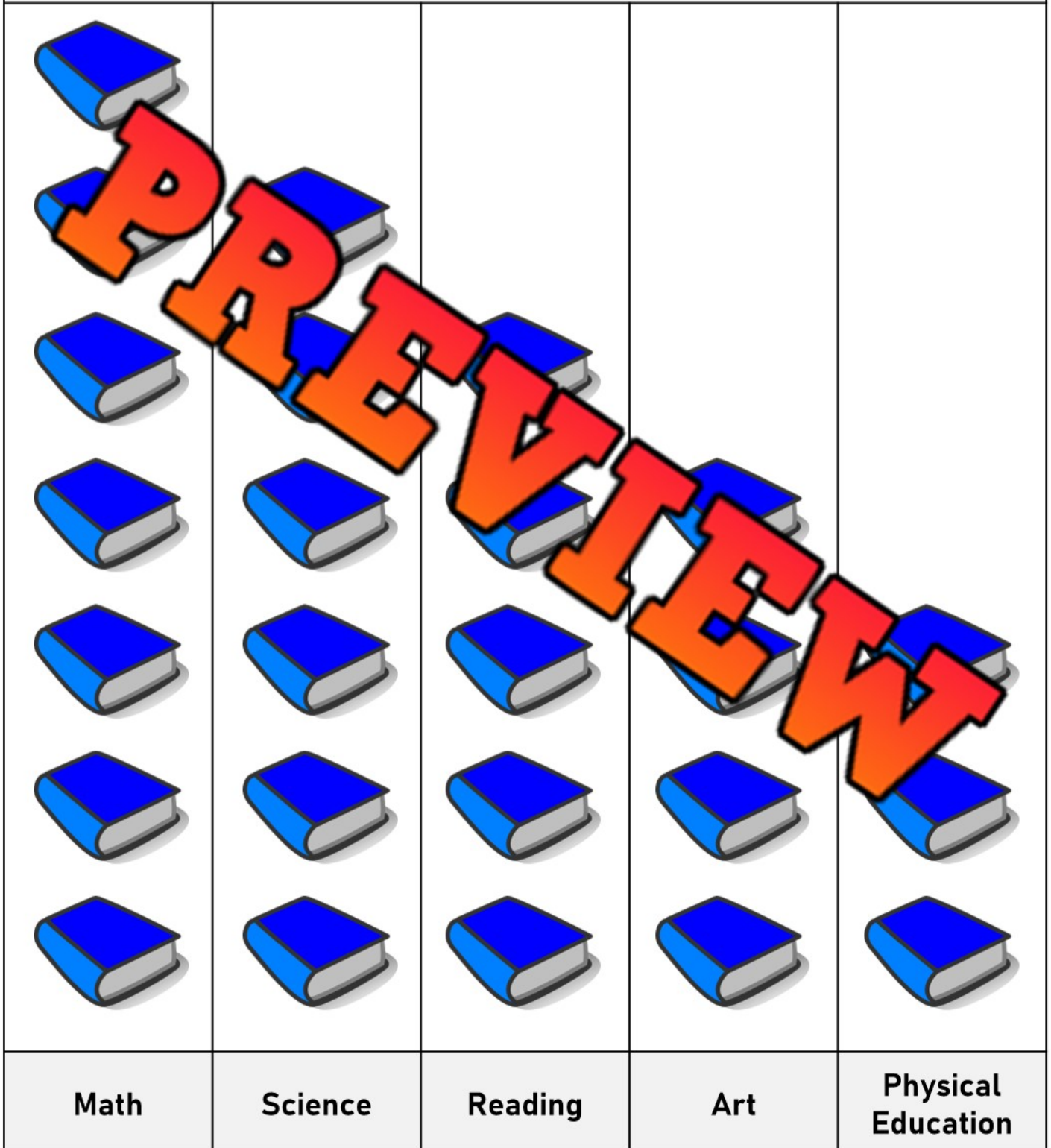
Visiting Family

Playing Video Game

Graph 4

What did you learn from the pictograph?

Favorite School Subjects of Students



Graph 5

What did you learn from the pictograph?

Types of Fruit Eaten by Students for Lunch



Apples

Bananas

Grapes

Oranges

Mangos

**Questions**

Choose a question to ask the student who is about to flip their bottle

Which category has the most votes?

Which category has the least votes?

How many votes are there in total?

How many categories are displayed on the graph?

How many categories have more than 5 votes?

How many categories have less than 4 votes?

How many votes are there in the second most popular category?

How many categories have exactly 4 votes?

How many categories have a total number of votes that is an even number?

How many categories have a total number of votes that is an odd number?

Are there any categories that have the same number of votes? Which ones?

How many categories have between 3 and 6 votes?

How many categories have more than 6 votes?

Which category has exactly 3 votes?

How many items are there in the three most popular categories combined?

How many categories have a total of less than 6 votes?

If you could add another category to this graph, what would it be?

How many categories have exactly 5 votes?

Name a category that has an odd number of votes?

How might the information on the graph impact decisions or opinions?

## Creating a Vertical Pictograph

James participated in a reading challenge last week. He read each day and wrote down how many minutes he read for each day of the week.



Sunday	15
Monday	30
Tuesday	20
Wednesday	15
Thursday	35
Friday	40
Saturday	20



**PREVIEW**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

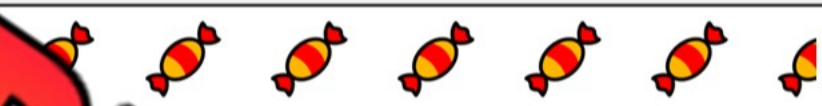







= 5 minutes

- |  |  |
|--|--|
| 1) What day did he read the most?  |  |
| 2) How many more minutes did he read on Friday than Wednesday?   |  |
| 3) Did James read <u>more</u> or <u>less</u> on Monday and Tuesday than he did on Friday and Saturday? |  |

# Horizontal Pictograph - Candy

Sam and his friends collected candy on Halloween. The amount of candy each friend collected is displayed below in the pictograph.

Friend	Number of Candies Collected	Frequency
Sam		
Stacy		
Tony		
Jill		
Stacy		

 = 2 Candies

a) How much is half a candy worth?

b) Who collected the most candy?

c) How much more candy did Jill collect than Tony?

d) How much total candy was collected?

e) Who would you want to trick or treat with? Why?






---




---

# Horizontal Pictograph - Books

Mr. Wilson's class had a competition to see who could read the most pages in their books in a week. The results have been displayed in the pictograph below for the top 5 readers in the class.

Friend	Number of Pages Read	Frequency
John		
William		
Emma		
Nick		
Maddy		

 = 10

**PREVIEW**

- |   |  |
|---|--|
| a) How many pages is one book worth?                              |  |
| b) How many pages is half a book worth?                           |  |
| c) Who read the most number of pages?                             |  |
| d) How many total pages were read by these 5 students?            |  |
| e) How many more pages did Emma read than William?                |  |
| f) Who do you think improved their reading the most? Explain why. |  |
| <hr/> <hr/>   |  |

## Creating a Horizontal Pictograph

Kevin and his friends went to an arcade on Saturday. They had a contest to see who could win the most tickets from the arcade games. The results are displayed in the table below.

Kevin	110
Neil	50
Steve	75
Dane	100
Chris	80



### Questions

A pictograph that displays the data above

Kevin	
Neill	
Steve	
Dane	
Chris	



= 10 tickets

1) Who won the most tickets?

2) How many more tickets did Dane win than Neil?

3) How many total tickets did the 5 kids win?

# Exit Cards


**Cut Out** Cut out the exit cards below and have students complete them at the end of class

Name: \_\_\_\_\_

Favourite ice cream flavour survey.

Chocolate = 8	Strawberry = 10
Vanilla = 4	Cookie Dough = 6

Draw a pictograph that displays the data above.

 = 2


Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: \_\_\_\_\_

Favourite ice cream flavour survey.

Chocolate = 8	Strawberry = 10
Vanilla = 4	Cookie Dough = 6

Draw a pictograph that displays the data above.

 = 2 Ice cream


Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: \_\_\_\_\_

Favourite ice cream flavour survey.

Chocolate = 8	Strawberry = 10
Vanilla = 4	Cookie Dough = 6

Draw a pictograph that displays the data above.

 = 2 Ice cream


Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: \_\_\_\_\_

Favourite ice cream flavour survey.

Chocolate = 8	Strawberry = 10
Vanilla = 4	Cookie Dough = 6

Draw a pictograph that displays the data above.

 = 2 Ice cream

Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

# Create a Pictograph - Seasons

## Instructions

Survey your class and use the data in a pictograph

**Survey Question:** What is your favourite season?

Category	Summer	Winter	Spring	Fall
Total				
Frequency				

Summer	
Winter	
Spring	
Fall	

= 1 Vote

1) What is the most popular season?	
2) What is the least popular season?	
3) How many people did you survey?	

Name: \_\_\_\_\_

43

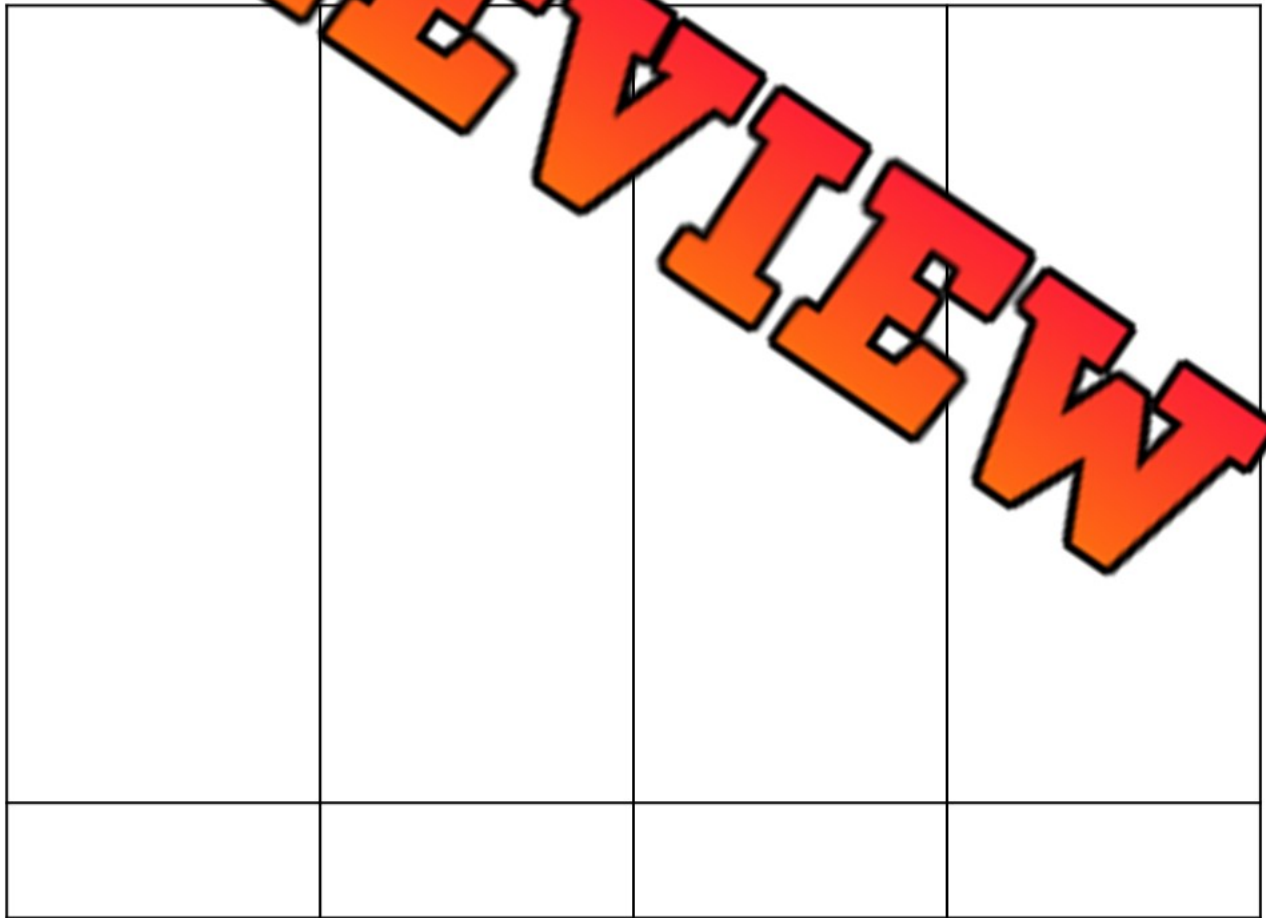
# Create a Pictograph

## Instructions

Survey your class and use the data to make a pictograph

Survey Question: \_\_\_\_\_

Category				
Frequency				



= \_\_\_\_\_ Vote(s)

## Activity: Tally Mark Pictograph Scavenger Hunt

### Objective

What are we learning about?

Students will use tally marks to collect and represent data, then interpret the information in a pictograph.

### Materials

What you will need for the activity.

- Tally sheet
- Pencil
- Clipboard or surface to write on
- Assorted small objects (e.g., buttons, pebbles, paperclips)



### Instructions

How you will complete the activity

1. Begin by reviewing the concept of tally marks with the class. Explain that tally marks are a simple way to count and keep track of items, one for every five.
2. Divide the class into small groups and distribute the tally sheets and clipboards.
3. Inform the students that they will be going on a scavenger hunt to search the classroom to collect different types of small objects, such as buttons, paperclips, and pebbles.
4. Assign each group a specific object to search for and count using tally marks on their recording sheets.
5. Give the students a set amount of time (e.g., 5-10 minutes) to search the classroom and collect their assigned objects, counting them using tally marks as they go.
6. Once the time is up, have the groups return to their seats and create a pictograph to represent the data they collected. Encourage them to use the tally marks to determine the number of each object and then draw the corresponding number of pictures to create the pictograph.
7. Invite the groups to share their pictographs with the class and discuss the findings. Encourage the students to analyze the data and identify any patterns or trends they notice.

Name: \_\_\_\_\_

Sheet

Record your findings here.

Object	Tally Marks	Total Counts
Buttons		
Pebbles		
Paperclips		
Erasers		
Pencils		
Crayons		
Rubber Bands		
Beads		
Sticks		
Small Toys		

**PREVIEW**

Name: \_\_\_\_\_

Sheet Draw a pictograph based on your recording sheet.

Items Students Found During Scavenger	
	Buttons
	Pebbles
	Paper-clips
	Erasers
	Pencils
	Crayons
	Rubber Bands
	Beads
	Sticks
	Small Toys

**PREVIEW**

## Vertical Bar Graph – Favourite Colour

The students in grade 2 were asked which colour was their favourite. The results of the survey have been displayed in the bar graph below.



a) Which colour was most popular?

b) Which colour was the least popular?

c) How many people chose yellow as their favourite?

d) How many people like red and blue the best?

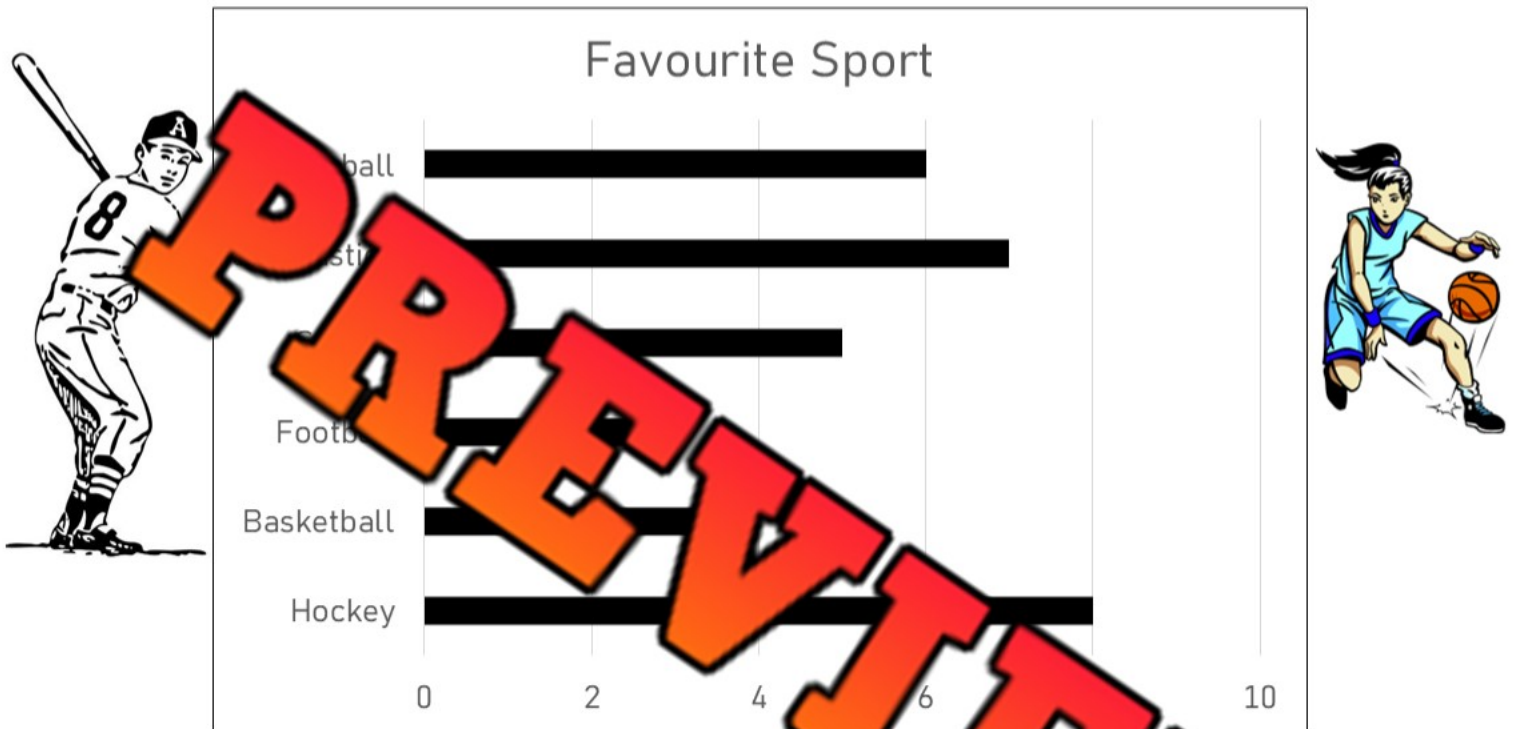
e) How many more people like red than orange?

f) What two colours add up to the amount of red?

g) How many people were surveyed?

## Horizontal Bar Graph – Favourite Sport

The kids at camp were asked which sport they liked the best. They surveyed each kid and the results have been displayed below in a horizontal bar graph.



a) Which sport was most popular?

b) Which sport was the least popular?

c) How many people chose gymnastics as their favourite?

d) How many kids liked basketball and soccer the best?

e) How many kids liked hockey more than football?

f) What two sports add up to the total for hockey?

g) How many kids were surveyed?

# Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: \_\_\_\_\_



1) Which category of drink is most popular?  
\_\_\_\_\_

2) How many people were surveyed?  
\_\_\_\_\_

Name: \_\_\_\_\_



1) Which category of drink is most popular?  
\_\_\_\_\_

2) How many people were surveyed?  
\_\_\_\_\_

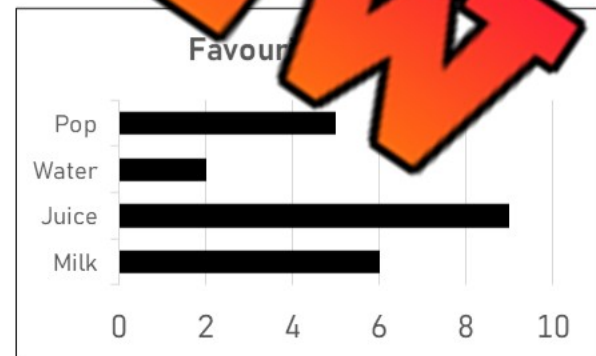
Name: \_\_\_\_\_



1) Which category of drink is most popular?  
\_\_\_\_\_

2) How many people were surveyed?  
\_\_\_\_\_

Name: \_\_\_\_\_



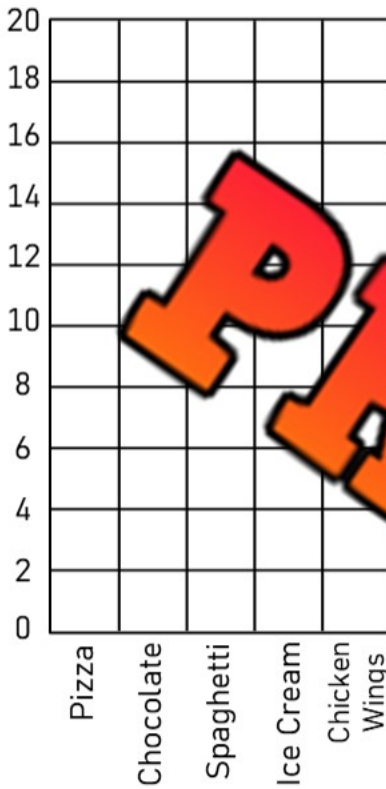
1) Which category of drink is most popular?  
\_\_\_\_\_

2) How many people were surveyed?  
\_\_\_\_\_

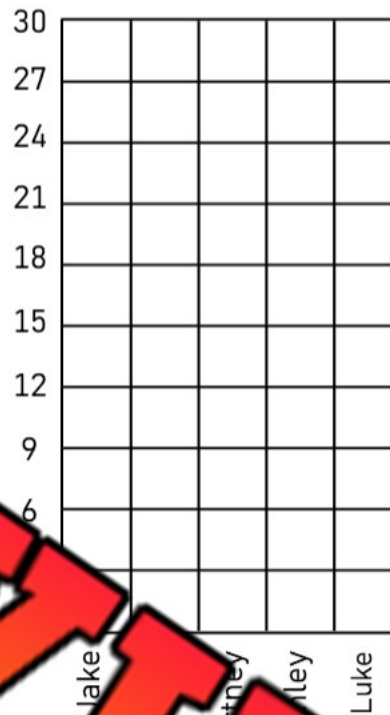
# Drawing Bar Graphs

## Questions

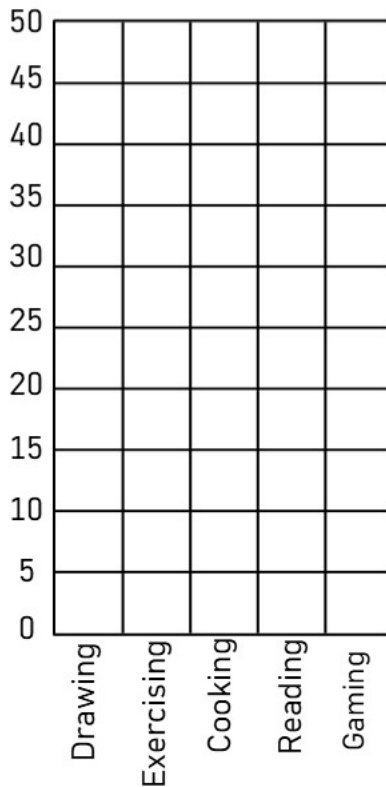
Draw the bars for each of the bar graphs below



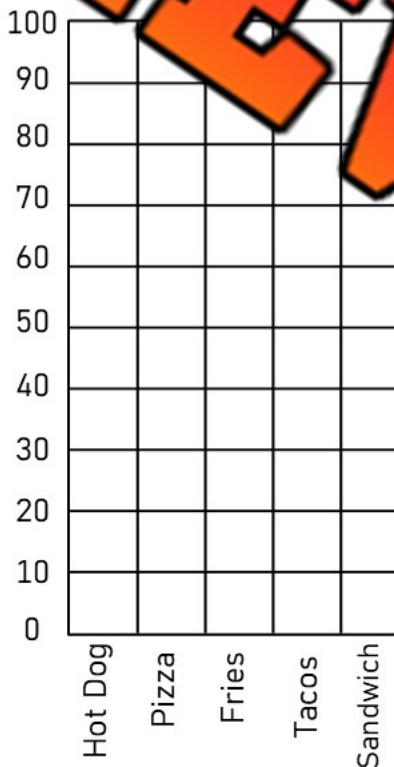
Favourite Food	# of votes
Pizza	14
Chocolate	10
Spaghetti	4
Ice Cream	9
Chicken Wings	6



Player	# of points
Jake	30
Nathan	12
Courtney	18
Ashley	24
Luke	6



Favourite Hobby	# of votes
Drawing	10
Exercising	20
Cooking	35
Reading	25
Gaming	40



Favourite Food	# of votes
Hot Dog	30
Pizza	60
Fries	50
Tacos	80
Sandwich	35

# Creating Scale

When you create a scale for your graph, you need to look at the data so you can decide what to go up by. The goal is to create a graph that will fill the graph area.

**Step 1:** Look at the data. Find the lowest and highest numbers.

**Step 2:** Count how many lines you have to plot your data.

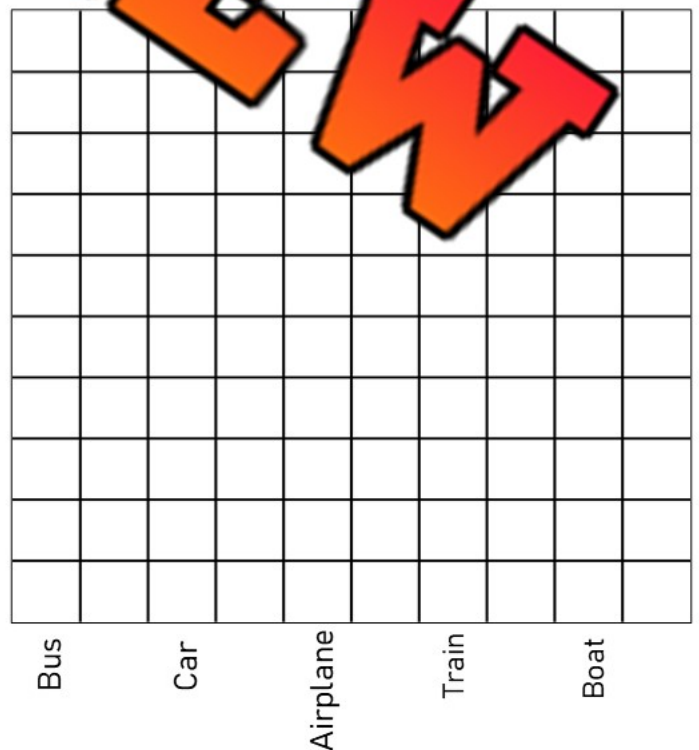
**Step 3:** Decide what to go up by to ensure you have enough space to plot ALL the data.



Favourite Dessert	# of votes
Brownie	14
Ice Cream	12
Cookie	2
Donut	16
Pudding	6



Favourite Transportation Method	# of votes
Bus	5
Car	15
Airplane	30
Train	25
Boat	40



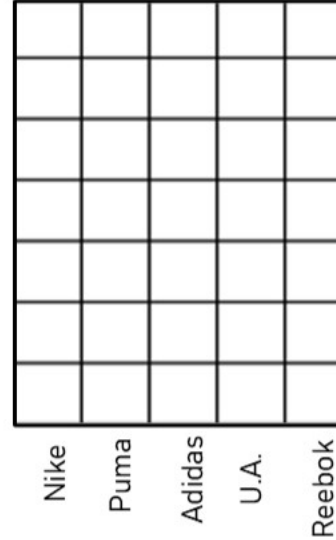
# Creating Scale

**Questions**

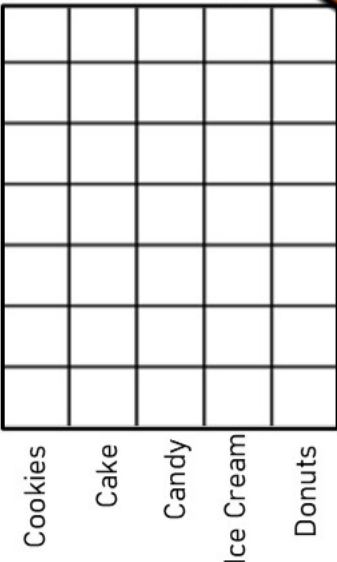
Read the numbers and decide which scale to use. After that, draw your bar graphs



Pets	Votes
Dog	8
Cat	14
Bunny	2
Hamster	6
Turtle	10



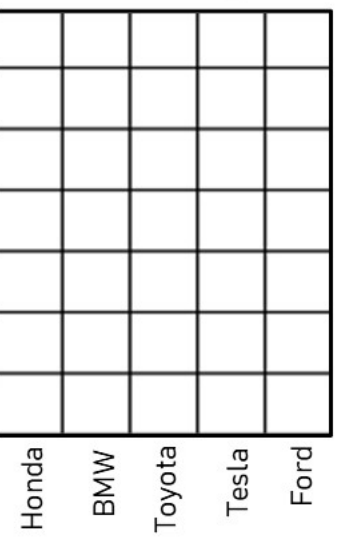
Brand	Votes
Nike	7
Puma	2
Adidas	4
Under Armour	5
Reebok	3



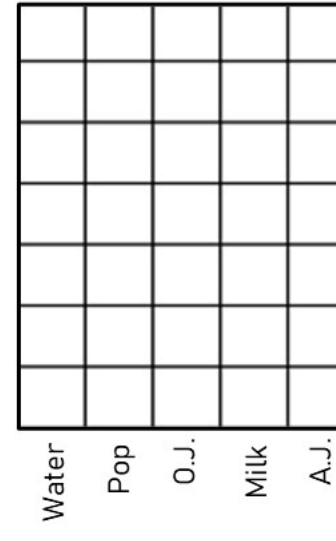
Treats	Votes
Cookies	12
Cake	8
Candy	21
Ice Cream	15
Donuts	18



Subject	Votes
Math	20
Science	30
Gym	70
Art	50
Language	40



Cars	Votes
Honda	40
BMW	100
Toyota	60
Tesla	80
Ford	20



Drinks	Votes
Water	200
Pop	500
Orange Juice	400
Milk	300
Apple Juice	600



## Activity Title: 4-Corners Scaling Game

### Objective

What are we learning about?

Students will learn to read data presented in a table and decide on the appropriate scale to use for creating various types of graphs.

### Materials

What you will need for the activity.

- Data table provided by the teacher
- Four signs labeled A, B, C, D for each corner of the room



### Instructions

How you will complete the activity.

1. Explain to the students the importance of choosing the appropriate scale for graphing data and how different scales can affect the appearance and readability of the data.
2. Show the students one of the data tables provided below. You may choose to project the table to the class.
3. Present multiple-choice options for the scale that could be used to graph the data. Each corner of the room will represent one of the multiple-choice answers.
4. Read out the scale options and ask the students to move to the corner that they believe represents the best scale for the data.
5. Once all students have chosen a corner, discuss the correct answer and explain why it is the best choice.
6. Repeat the process with different data tables and scale options.

Table 1

Analyze the data and then move to one of the corners of the room

Fruits	Votes
Grape	40
Apple	10
Banana	50
Banana	30
Orange	20

Table 1

Scale Options:

- A: 5
- B: 10
- C: 15
- D: 20

Table 2

Analyze the data and then move to one of the corners of the room

Sports	Votes
Baseball	20
Soccer	5
Tennis	15
Swimming	25
Basketball	10

Table 2

Scale Options:

- A: 1
- B: 2
- C: 5
- D: 10

Table 3

Analyze the data and then move to one of the corners of the room

Colours	Votes
Purple	40
Red	8
Yellow	32
Green	24
Blue	16

Table 3

Scale Options:

- A: 4
- B: 6
- C: 8
- D: 10

Table 5

Analyze the data and then move to one of the corners of the room

Subjects	Votes
Art	125
Math	25
English	75
Science	50
History	100

Table 5

Scale Options:

- A: 15
- B: 20
- C: 25
- D: 50

Table 6

Analyze the data and then move to one of the corners of the room

Snacks	Votes
Chips	10
Cookies	20
Potato Chips	30
Pringles	40
Nuts	50

Table 6

Scale Options:

- A: 5
- B: 10
- C: 15
- D: 20

Table 8

Analyze the data and then move to one of the corners of the room

Seasons	Votes
Summer	33
Fall	18
Winter	15
Autumn	12
Spring	22

Table 8

Scale Options:

- A: 1
- B: 2
- C: 5
- D: 10

Table 9

Analyze the data and then move to one of the corners of the room

Animals	Votes
Giraffe	50
Lion	10
Elephant	30
Tiger	40
Elephant	20

Table 9

Scale Options:

- A: 5
- B: 10
- C: 15
- D: 20

Table 10

Analyze the data and then move to one of the corners of the room

Books	Votes
Fantasy	75
Mystery	25
History	20
Adventure	50
Science	100

Table 10

Scale Options:

- A: 25
- B: 5
- C: 10
- D: 20

# Collecting Data

## Survey Question

Collect data by asking your classmates your survey question

<u>Examples of survey questions</u>	<u>Categories</u>
1) What is your favourite animal?	Dog, cat, bunny, horse, lion
2) What is your favourite sport?	Basketball, hockey, baseball, soccer, football
3) What colours do you have?	Blue, brown, green, turquoise, other

## Survey Question

Example: What is your favourite colour?

Categories			
Tally			
Frequency			

## Interpreting Your Survey Results

- How many people did you survey? \_\_\_\_\_
- Which category was the most popular? \_\_\_\_\_
- Which category was the least popular? \_\_\_\_\_
- If you asked your entire school, which category do you think would win? Explain.  
\_\_\_\_\_

5. Did any of the survey results surprise you?

I'm surprised that \_\_\_\_\_

Name: \_\_\_\_\_

## Creating a Bar Graph

Use the data you collected to plot your graph. Remember the following labels:

- X axis label    Y axis label    Title    Scale    Categories



# Unit Test – Statistics and Probability

## Part 1

Count the tally marks

 _____	 _____	 _____	 _____	 _____
-----------	-----------	-----------	-----------	-----------

## Part 2

Draw tally marks that match the number

3 =	10 =	17 =
15 =		20 =

## Part 3

Create a line graph and answer questions

Colton played 5 games of hockey last season. The number of goals he scored in each game is displayed below. Create a line graph to show the number of goals.

Game 1	1
Game 2	7
Game 3	3
Game 4	5
Game 5	2

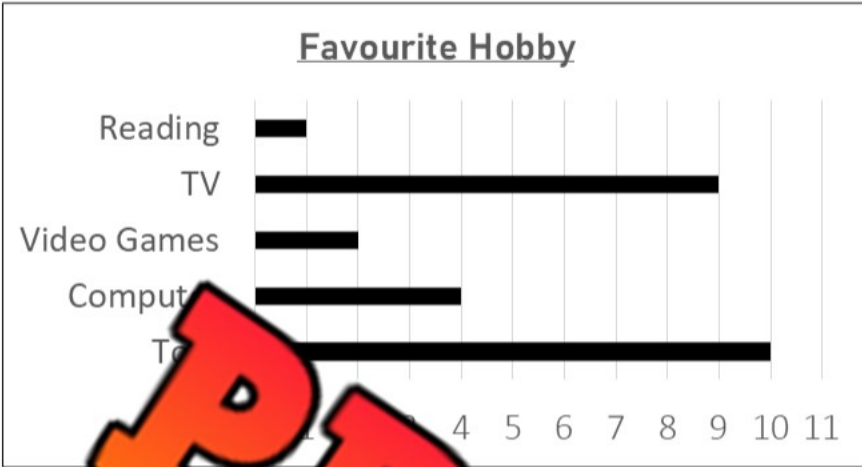
Game 1	Game 2	Game 3	Game 4	Game 5

1) Which game did he score the most goals? \_\_\_\_\_ Least goals? \_\_\_\_\_

2) How many more goals did he score in game 2 than game 1? \_\_\_\_\_

3) How many total goals did he score in all 5 games? \_\_\_\_\_

The grade 3s were asked which hobby was their favourite. The results have been graphed below.



a) Which hobby was the most popular?

b) Which hobby was the least popular?

c) How many more students chose TV than reading?

d) How many students were surveyed?

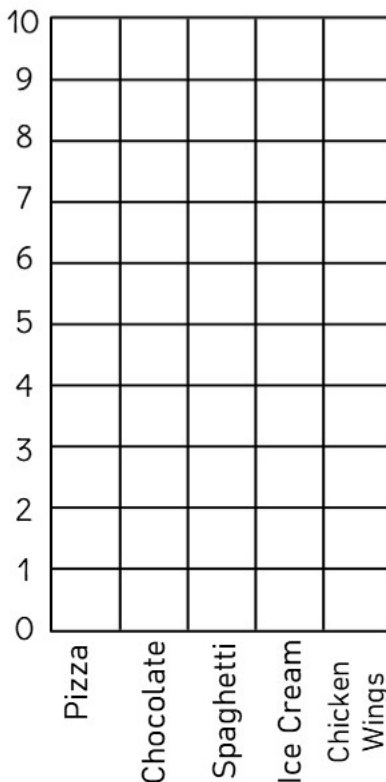
**PREVIEW**

Part 5

Draw the bars for each of the bar graphs below.



Favourite Food	# of votes
Pizza	4
Chocolate	6
Spaghetti	2
Ice Cream	7
Chicken Wings	10



Name	# of points
Jake	3
Nathan	5
Courtney	1
Ashley	8
Luke	9

