

Grade 4
D1. – Data Literacy



	Curriculum Expectations	Pages That Cover the Expectations
D1.1	describe the difference between qualitative and quantitative data, and describe situations where each would be used	5 - 11
D1.2	collect data from different primary and secondary sources to answer questions of interest that involve	12 – 14, 28 – 36, - 86
D1.3	graphs	42 – 91
D1.4	create an infographic about a data set, representing the data in appropriate ways, including in frequency tables, stem-and-leaf plots, and multiple-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	92 - 93
D1.5	determine the mean and the median and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data	15 – 25, 55 - 59
D1.6	analyse different sets of data presented in various ways, including in stem-and-leaf plots and multiple-bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	37, 39 – 43, 45 – 70, 96 - 97

Preview of 80 pages from this product that contains 234 pages total.

Name: _____ 9

Curriculum Connection
D1.1

Qualitative vs Quantitative Data

Quantitative data	**Qualitative data**
Data that uses numbers (measured, counted) - length, height, area, weight, time, etc.	data that uses words (categories) - choices, favourites, foods, colours, etc.

Questions ad the description of the data and circle if it is quantitative or qualitative

1) M e sale last month	Quantitative Qualitative
2) Heights of t in gr	Quantitative Qualitative
3) Favourite foods of the udent	Quantitative Qualitative
4) Rainfall in April last year	Quantitative Qualitative
5) Favourite colours of the students in your clas	Quantitative Qualitative
6) The weight of different hockey skates	Qua itative e
7) The height of the grade 4 students	itative ualitative
8) Favourite season of the students in your school	Quantitative Qualitative
9) Which town/city people live in that go to your school	Quantitative Qualitative
10) Whether or not you have a pet	Quantitative Qualitative
11) How long it took to get to school	Quantitative Qualitative

PREVIEW

© Super Simple Sheets

Name: _____ 11

Curriculum Connection
D1.1

Quantitative vs Qualitative Observations

Image #1



Image #2



Part 1 Write observations about image #1 and put an x if it is quantitative or qualitative

Observations	Quantitative	Qualitative
1) The vehicle has	X	
2) The vehicle has [illegible]es		
3) The vehicle is white and [illegible]		
4) The vehicle's age is 3 yea[illegible]		
5) The vehicle has silver rims		
6) The vehicle has 2 headlights		
7) The vehicle is a car		
8) The vehicle drives up to 180km/hour		
9) The vehicle's tires are large		
10) The vehicle weighs 1700 kilograms		

PREVIEW

Part 2 Write quantitative and qualitative observations about image #2

Observations	Quantitative	Qualitative
1)		
2)		
3)		
4)		
5)		

© Super Simple Sheets

Name: _____ 12

Curriculum Connection
D1.2

Primary vs Secondary Data

Primary Data
Data that you have collected yourself
Example
- asking your classmates their favourite food

Secondary Data
Data that has been collected by someone else
Example
- finding data on the internet

Part 1 Read the description of the data and circle if it is primary or secondary data

1) You as[illegible]ssmates what their favourite pizza topping is	Primary	Secondary
2) Yo[illegible]f the teachers in your school	Primary	Secondary
3) You record [illegible]in different types of drinks	Primary	Secondary
4) You look up the t[illegible]r in your city	Primary	Secondary
5) You research how many [illegible]ney [illegible]red per game in his first 10 seasons	Primary	Secondary
6) You record how many sit-ups your c[illegible]tes ca[illegible] minute	Primary	Secondary
7) You weigh 5 different cookies you buy from a[illegible]	[illegible]mary	Secondary
8) You research how many kids in Canada do gymnasti[illegible]	P[illegible]y	Secondary
9) You look up the speeds of 5 different computers for sale	[illegible]	[illegible]dary
10) You measure the heights of the kids in your class	Prim[illegible]	Secondary

PREVIEW

Part 2 Write your own primary and secondary data descriptions below

1) Primary	
2) Secondary	
3) Primary	
4) Secondary	

© Super Simple Sheets

Name: _____ 15

Curriculum Connection
D1.5

MEAN



When we calculate the mean, we are finding the average of a set of numbers.

Example:

Three brothers named Josh, Cameron, and Morgan went on an easter egg hunt. Josh found 6 eggs, Cameron found 4, and Morgan found 5. At the end of the hunt, their mother told them t the eggs equally. So, they decided to put all the eggs in the middle and then divi e qu lly to themselves. They had 6 + 4 + 5 = 15 eggs and 15 ÷ 3 kids = 5 eggs

PREVIEW

Josh	C n	Morg	Total		Josh	Cameron	Morgan
6 Candy Bag	4 Candy Bag	5 Can	15 y Bag	=	5 Candy Bag	5 Candy Bag	5 Candy Bag

M

Questions Its Halloween – up the and then fair share it

Claire	Katie	Ashley		Total			Ashley
4 Candy Bag	6 Candy Bag	2 Candy Bag	=	_____ Candy Bag			_____ andy Bag

Mean = _____

Emma	Olivia	Ava		Total		Emma	Olivia	Ava
8 Candy Bag	4 Candy Bag	3 Candy Bag	=	_____ Candy Bag	=	_____ Candy Bag	_____ Candy Bag	_____ Candy Bag

Mean = _____

© Super Simple Sheets

Name: _____ 17

Curriculum Connection
D1.5

MEAN

Mean = the average in a set of data

Step 1: Add up the numbers in the data set

Step 2: Divide the sum by the amount of numbers in the set.

Example:

Data set: 5, 6, 8, 5

Step 1: 5 + 6 + 8 + 5 = 21

2: 24 ÷ 4 = (6)



Ques[illegible] the mean for each data set below

[illegible], 4	2) 8, 4, 12, 4
3) 12, 6, 10, 8	[illegible]) 20, 10, 30, 20
5) 23, 35, 24, 30	46[illegible]
7) 12, 19, 12, 26, 31	8) 15, 8, 20, 16, 11
9) 13, 18, 17, 22, 30	10) 42, 36, 55, 23, 14

PREVIEW

Name: _____ 18

Curriculum Connection
D1.5

MODE

Mode: The mode is the category with the highest frequency. In a data set, the mode is the number that occurs the most.

For example: Twelve grade 5s were asked their age. The results are listed in the data set below:

10, 10, 9, 10, 9, 10, 10, 10, 9, 9, 10, 10

Age	9	10
Frequency	4	8

As you can see from the frequency table, there were 8 votes for 10 year[illegible] and only 4 for 9 years old. Therefore, the mode is [illegible] is a tie, both or all numbers are the mode. You may also notice that the fr[illegible]ot [illegible]ode. The frequency does tell us which category is the mode.

PREVIEW

Questions G[illegible]ple[illegible]sked their age. They are listed in the data sets bel[illegible]n the[illegible] table and write the mode(s).

Data Set	Ordered List	Mode
1) 13, 11, 11, 15, 13, 16, 11	# | [illegible] | 13 | 15 | 16 Frequency | | | |	
2) 28, 22, 23, 22, 25, 25, 28	# | 22 | [illegible] | 25 | [illegible] Frequency | | | | |	
3) 35, 37, 49, 35, 35, 37, 49, 35	# | 35 | 37 | 49 Frequency | | |	
4) 54, 58, 58, 54, 54, 54, 65, 58	# | 54 | 58 | 65 Frequency | | |	

© Super Simple Sheets

Name: _____ 19

Curriculum Connection
D1.5

MODE

Questions	Answer the questions below

1) Justin tracks what time he goes to bed at for 20 days. His bedtimes are written below:

8, 10, 7, 8, 7, 7, 8, 10, 11, 9, 9, 7, 7, 8, 11, 10, 8, 8, 9, 8

a) Fill i quency table

		8	9	10	11
Frequency					



b) What is the mo

c) What does the mode

PREVIEW

2) Warren's friends were asked which dinner wa t ding reception. The results are below.

Fish, chicken, chicken, steak, vegetables, vegetables, chi n, fi
chicken, vegetables, fish, fish, chicken, steak, steak, steak, chic les,
fish, chicken, steak, vegetables, fish, chicken, chicken, steak, ste

a) Fill in the frequency table

Food	Fish	Chicken	Steak	Vegetables
Frequency				



b) What is the mode?

c) How does a frequency table help us find the mode?

© Super Simple Sheets

Name: _____ 20

Curriculum Connection
D1.5

Mode and Frequency Tables

Questions | Answer the questions below

1) Tracy ran 7 races. Her times in seconds are listed in the data set below:

28, 29, 22, 26, 23, 25, 24



a) Fill in the frequency table

T							

b) What is the

c) When is it pos hat th ode in a data set?

2) Bella recorded her grades on mat this grades are listed below:

B, B, A, C, A, A, B, D, A, A, A, B, A, A, B, C, A A, C A, A, B, D, A, A, B

a) Fill in the frequency table

Grades				
Frequency				



b) What is the mode?

3) Courtney did 30 sets up pull-ups. She recorded how many reps she did in each set.

8, 7, 8, 6, 7, 6, 7, 5, 6, 6, 5, 4, 5, 5, 4, 3, 4, 5, 3, 3, 4, 5, 3, 2, 3, 3, 2, 2, 4, 2

a) Fill in the frequency table

Pull-Ups	2	3	4	5	6	7	8
Frequency							

b) What is the mode?

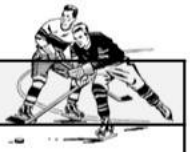
PREVIEW

© Super Simple Sheets

Name: _____ 22

Curriculum Connection
D1.5

Mean and Mode





Hockey Goals
7 8 6 1 2 6
Mean: _____
Mode: _____

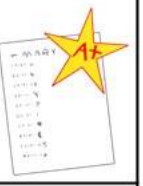
Basketball Points
22 29 33 22 19
Mean: _____
Mode: _____



Minutes Read Per Day
17 23 19 17 19 25
Mean: _____
Mode: _____



Test Scores
72 [illegible] 85 [illegible]
Mean: _____
Mode: _____



PREVIEW

© Super Simple Sheets

Name: _____ 23

Curriculum Connection
D1.5

MEDIAN

Median: The median is the middle number in a data set.

Step 1: put numbers in order from least to greatest
Step 2: circle the number in the middle.



*** If there is an even amount of numbers in the data set, add the two numbers in the middle together and divide by 2. This is the median.

PREVIEW

	Ordered List	Median
8, 12	4, 7, 8, 8, 12, 15	8 + 8 = 16 16 ÷ 2 = 8
25, 35, 12, 53, 15, 7		
18 17, 11, 15, 14, 41		
231, 412, 165, 132, 335, 65		
5.7, 1.3, 1.5, 2.5, 6.8, 1.0, 2.4		
12, 28, 0, 0, 22, 0, 36, 42		
130, 265, 217, 323, 112, 203		
11, 14, 125, 214, 425, 135, 163		

© Super Simple Sheets

Name: _____ 24

Curriculum Connection
D1.5

MEDIAN

Part 1 — Answer the questions below

1	At recess, five students timed their jump-rope counts in one minute: 45, 52, 48, 40, 50. What is the median jump count?	
2	Eig dents each filled a small cup with grapes: they counted 8, 12 13, 10, 14 grapes. What is the median number of g	
3	On a co ded five temperatures (in °C): −2, 3, 1, 0, 4. W medi rature?	
4	On Saturday and Sund tra ps each hour during a ten-hour walk-athon: 12 , 130 0, 2280, 2200, 3120, 2160, 2140. What is the me these urly step-counts?	

PREVIEW

Challenge — Answer the questions below

During a school fundraiser, Grade 4 students sold raffle tickets in five different time slots. In the first hour, they sold 12 tickets. In the second hour, they sold 3 more than in the first hour. In the third hour, they sold 5 fewer than in the second hour. In the fourth hour, they doubled their first-hour sales. In the fifth hour, they sold 2 fewer than in the third hour.



1) How many tickets were sold in total?	
2) What is the median number of tickets sold?	

Name: _____ 25

Curriculum Connection
D1.5

Review



Questions Fill in the table using the different measures of central tendency

Data Set	33, 12, 27, 33, 14, 25, 17
Mean	
Median	
Mode	

Data Set	115, 135, 146, 101, 115, 126
Mean	
Median	
Mode	

Data Set	3.5, 4.0, 4.5, 6.5, 7.0, 4.5
Mean	
Median	
Mode	

Data Set	215, 124, 110, 315, 216, 124
Mean	
Median	
Mode	

PREVIEW

Rob got the following marks on his math tests throughout the year. What is his average mark?

87 75 62 98 65 78

Answer: _____

© Super Simple Sheets

Name: _____ 26

Curriculum Connection
D1.3

Stem and Leaf Plots

A stem and leaf plot is another way to organize data so it can be better understood. The stem represents the first digit or digits, and the leaf represents the last digit.



How to create a stem and leaf plot

1. Put the numbers in order from smallest to largest.
2. Determine the stems by looking at the first number. Sometimes you will have two-digit stems.
3. Write the corresponding leaf (the last digit) under the leaf part of the table.

Question Complete the stem and leaf plots below

1) 22, 34, [illegible]

Stem	Leaf

2) 42, 14, 15, 18, 32, 38, 56, 54

Stem	Leaf

3) 76, 84, 34, 55, 64, 22, 25

Stem	Leaf

4) 145, 137, 125, 118, [illegible], 137, 146

Stem	Leaf

PREVIEW

© Super Simple Sheets

Name: _____ 27

Curriculum Connection
D1.3

Stem and Leaf Plots

A stem and leaf plot is another way to organize data so it can be better understood. The stem represents the first digit or digits, and the leaf represents the last digit.



Questions Read the stem and leaf plots and fill in the tables below

PREVIEW

1.

Stem	Leaf
	6
5	
6	

Data Set	
Median	
Mean	
Mode	

2.

Stem	Leaf
2	1, 5, 5
4	4
6	8
7	4, 6, 9
9	4, 4

Data Set	
Median	
Mean	
Mode	

3.

Stem	Leaf
3	3, 3, 5
5	2
7	3, 5
8	8, 8
9	4, 9

Data Set	
Median	
Mean	
Mode	

4.

Stem	Leaf
2	3, 7
4	5, 5
5	3
7	0, 7
9	0, 1, 9

Data Set	
Median	
Mean	
Mode	

© Super Simple Sheets

Name: _____ 28

Curriculum Connection
D1.2, D1.3

Collecting Data – Stem and Leaf Plot

Directions Find out how many times the students in your class breathe in a minute

Your teacher will start a 1-minute timer. Your job will be to count how many breathes you take in the one minute. Try to breathe normally. Write your result below.

How many times did I breathe in one minute? ☐



Statistical question: How many times do the students in my class breathe in a minute?

Data Set (Write everyone's results or sample 10 students)	
Put the results in order from smallest to largest	

Stem	Leaf

PREVIEW

Name: _____ 29

Curriculum Connection
D1.2, D1.3

Collecting Data – Stem and Leaf Plot

Calculate Calculate the measures of central tendencies below

Mean	
n	
Mo	

PREVIEW

Questions An[illegible]estio[illegible]ow

1) Is the data quantitative or qualitative?

2) Is the data primary or secondary data? Explain.

3) Did you have an above average or below average breathe rate? Explain.

4) What did you learn about the data?

© Super Simple Sheets

Curriculum Connection
D1.2, D1.3

Exit Cards

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

Fill in the stem and leaf plot below

22, 12, 15, 16, 34, 34, 53, 56

Stem	Leaf

Fill in the stem and leaf plot below

22, 12, 15, 16, 34, 34, 53, 56

Stem	Leaf

Fill in the stem and leaf plot below

22, 12, 15, 16, 34, 34, 53, 56

Stem	Leaf

Fill in the stem and leaf plot below

22, 12, 15, 16, 34, 34, 53, 56

Stem	Leaf

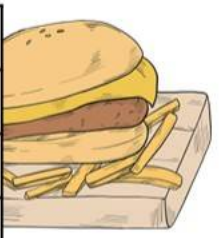
PREVIEW

© Super Simple Sheets

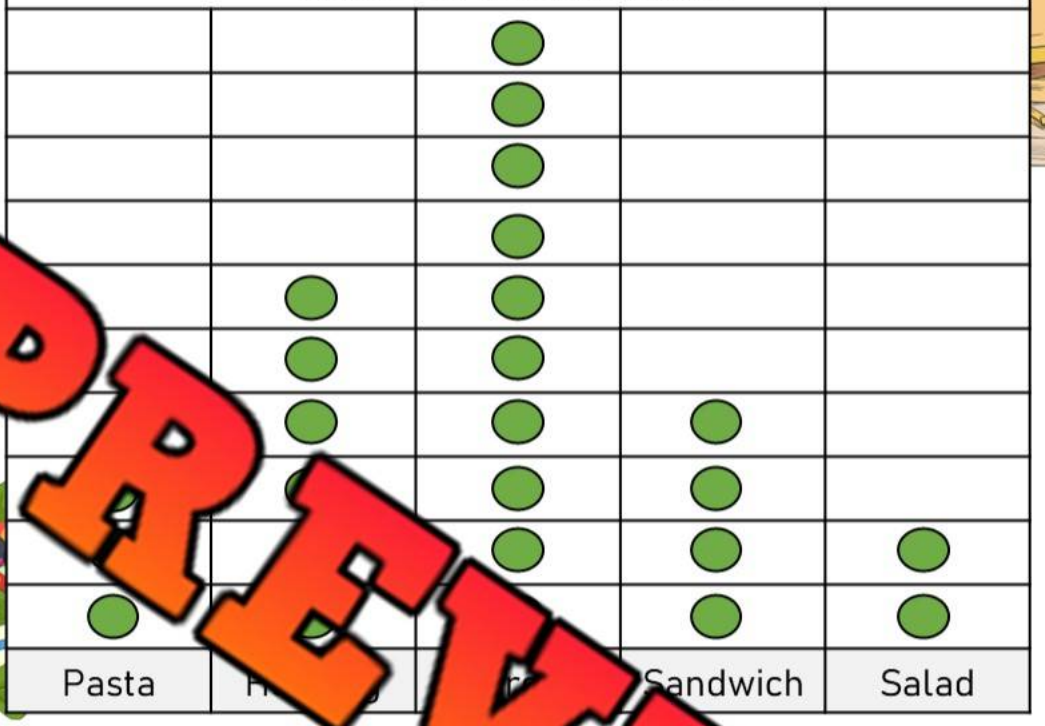
Name: _____ 37

Curriculum Connection
D1.6

Reading a Line Plot – Favourite Dinner







PREVIEW

Dinner	Pasta	Hot D	Bu	Sandwich	Salad
Frequency					

Questions Read the line plot and answer the qu

a) Write the statistical question for the graph.

b) Which dinner was the most popular?	
c) Which dinner was the least popular?	
d) How many total people were asked the survey question?	
e) How many more people like burgers than salad?	

f) Would a line plot be a good graph if you had a lot of data – over 100 responses? Explain

_____

_____

© Super Simple Sheets

Name: _____ 39

Curriculum Connection
D1.6

Horizontal Pictograph - Candy

A **pictograph** is a graph that displays data using symbols or pictures. They often use many-to-one versus one-to-one correspondence.

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

Friend	Number of Candies Collected	Frequency
S		
Steve		
Tony		
Jill		
Stacy		

= 4 Candies

PREVIEW

a) How much is one candy worth?	
b) Who collected the most candy?	
c) How much more candy did Jill collect than Tony?	
d) Did Sam and Steve collect more or less candy than Stacy and Jill?	
e) How much total candy was collected?	

© Super Simple Sheets

Curriculum Connection
D1.6

Exit Cards

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

Name: _____

Write down the number of shoes each student has.

Friend	Number of Shoes Students Have	Total
Liam		
Olivia		
Ethan		
Ava		

= 4 Shoes

Name: _____

Write down the number of shoes each student has.

Friend	Number of Shoes Students Have	Total
Liam		
Olivia		
Ethan		
Ava		

= 4 Shoes

Name: _____

Write down the number of shoes each student has.

Friend	Number of Shoes Students Have	Total
Liam		
Olivia		
Ethan		
Ava		

= 4 Shoes

Name: _____

Write down the number of shoes each student has.

Friend	Number of Shoes Students Have	Total
Liam		
Olivia		
Ethan		
Ava		

= 4 Shoes

PREVIEW

© Super Simple Sheets

Name: _____ 42

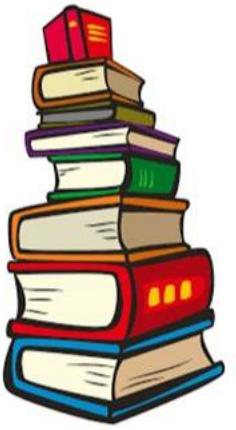
Curriculum Connection
D1.3, D1.6

Creating a Vertical Pictogram

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

 = 10 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 more or less on Monday and Tuesday than he did on Friday and Saturday?	

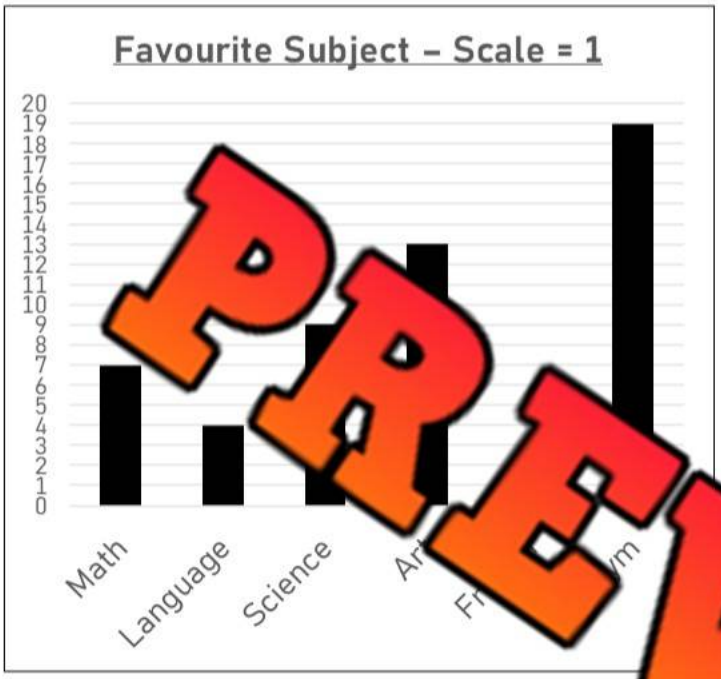
© Super Simple Sheets

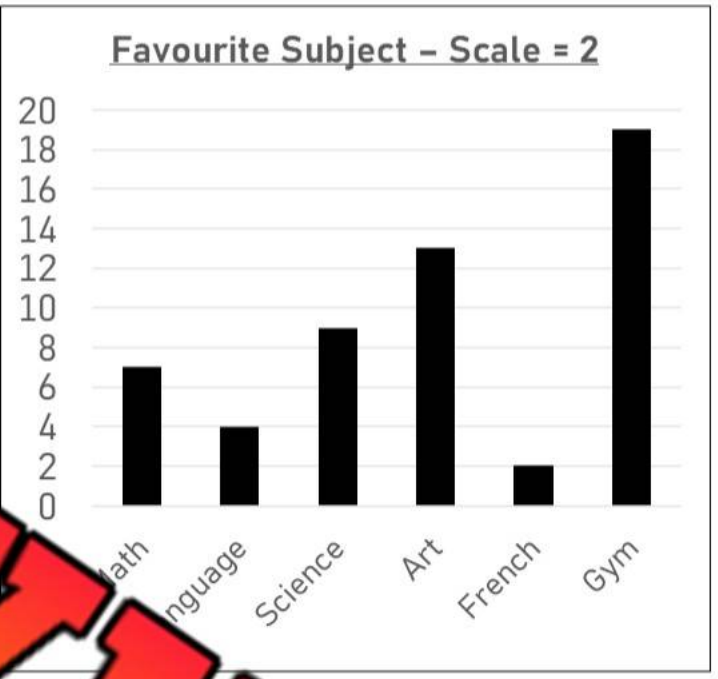
Name: _____ 45

Curriculum Connection
D1.6

One-to-One vs Many-to-One

The grade 4's from Wellington Elementary School were asked which subject was their favourite. The results have been displayed in two different bar graphs.





PREVIEW

a) Which subject was most popular?	
b) Which subject was the least popular?	
c) How many more students liked gym than French?	
d) How many students were surveyed?	
e) What is different about the two graphs? Which graph is easier to read?	
f) When is it better to use larger numbers for your scale? When should you use smaller numbers, like one-to-one?	

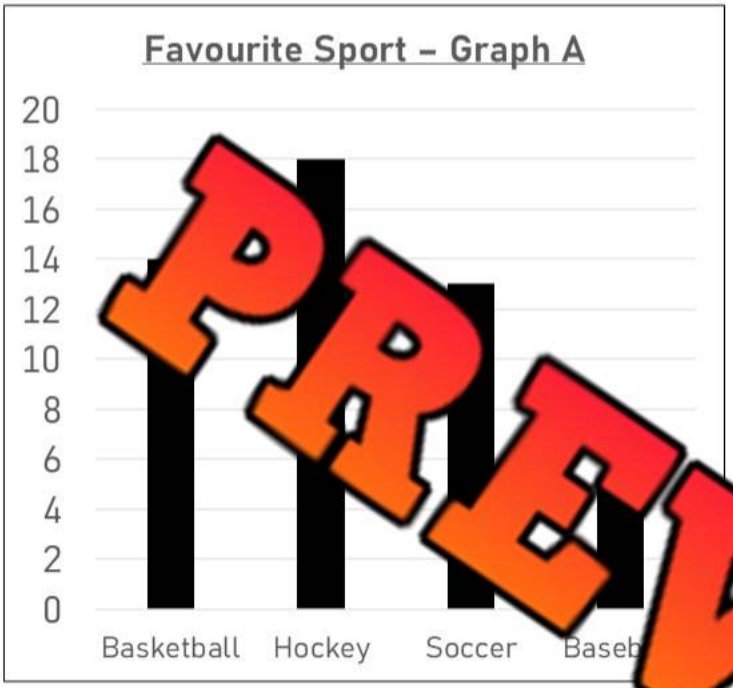
© Super Simple Sheets

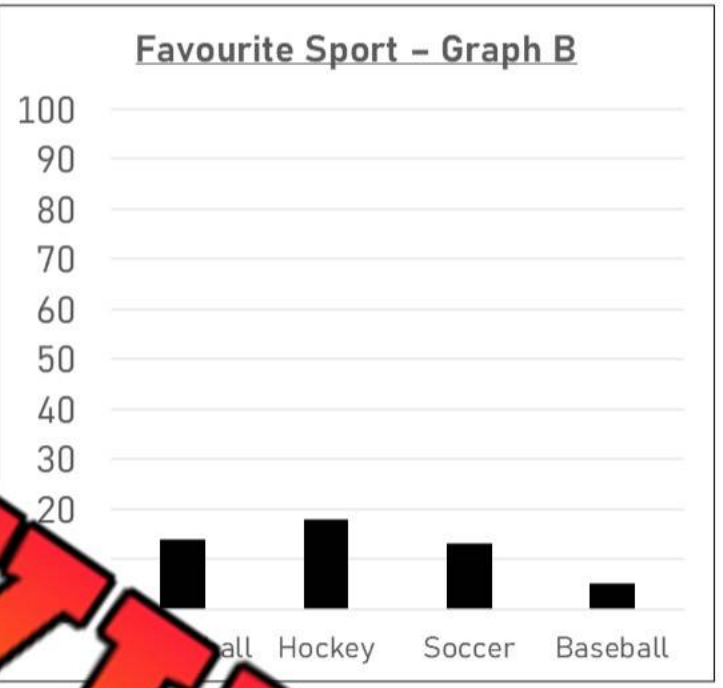
Name: _____ 47

Curriculum Connection
D1.6

Favourite Sport – Examining Scale

The two graphs below display the same data. Examine both graphs and answer the questions below.





PREVIEW

Questions	What do you notice a[illegible]e tw[illegible]

a) What is the scale in Graph A?	
b) What is the scale in Graph B?	
c) Which graph uses more of the space?	
d) Which graph is easier to read and interpret? Why is that graph better?	
e) Why is it important to choose an appropriate scale?	

© Super Simple Sheets

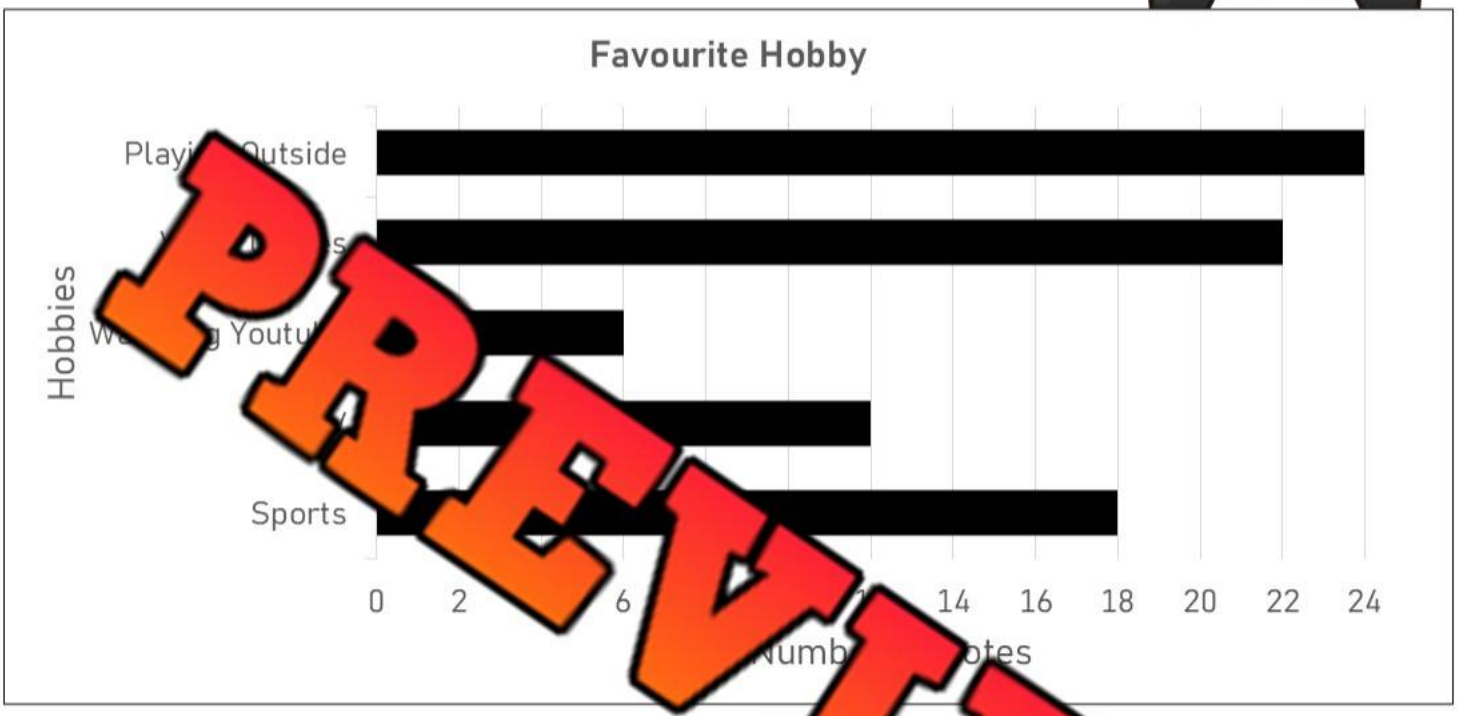
Name: _____ 49

Curriculum Connection
D1.6

Horizontal Bar Graph – Favourite Hobby

100 people were surveyed about their favourite hobby.
The results have been displayed in the graph below.





PREVIEW

a) Which hobby is the most popular?	
b) What are the 2 labels (titles) for the x and y axis?	(y)_____
c) How many people chose video games as their favourite?	
d) How many people liked playing outside and TV the best?	
e) How many people liked sports more than watching YouTube?	
f) What two hobbies add up to the amount of people who chose playing outside?	
g) How many people were surveyed?	

© Super Simple Sheets

Curriculum Connection
D1.6

Exit Cards

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

Name: _____



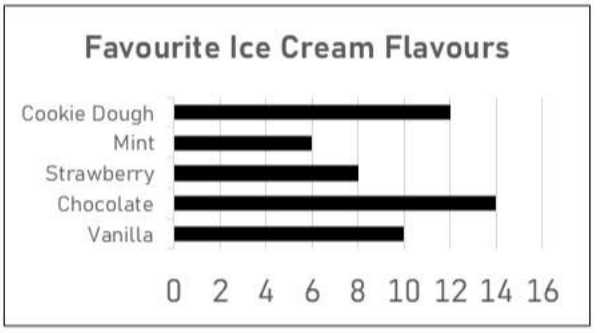
1) Which category of ice cream is most popular?

_____

2) How many people were surveyed?

_____

Name: _____



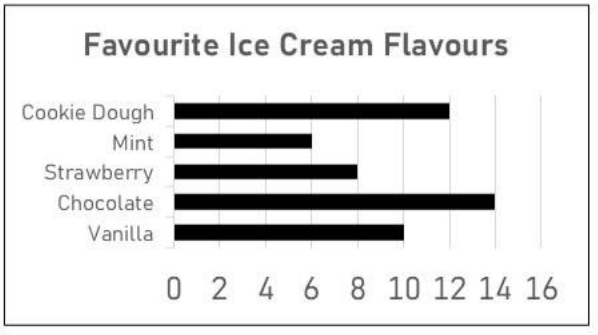
1) Which category of ice cream is most popular?

_____

2) How many people were surveyed?

_____

Name: _____



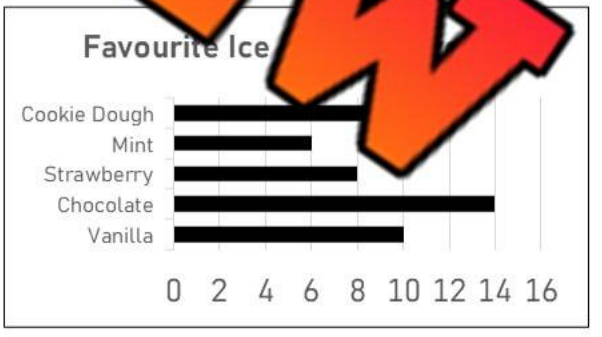
1) Which category of ice cream is most popular?

_____

2) How many people were surveyed?

_____

Name: _____



1) Which category of ice cream is most popular?

_____

2) How many people were surveyed?

_____

PREVIEW

© Super Simple Sheets

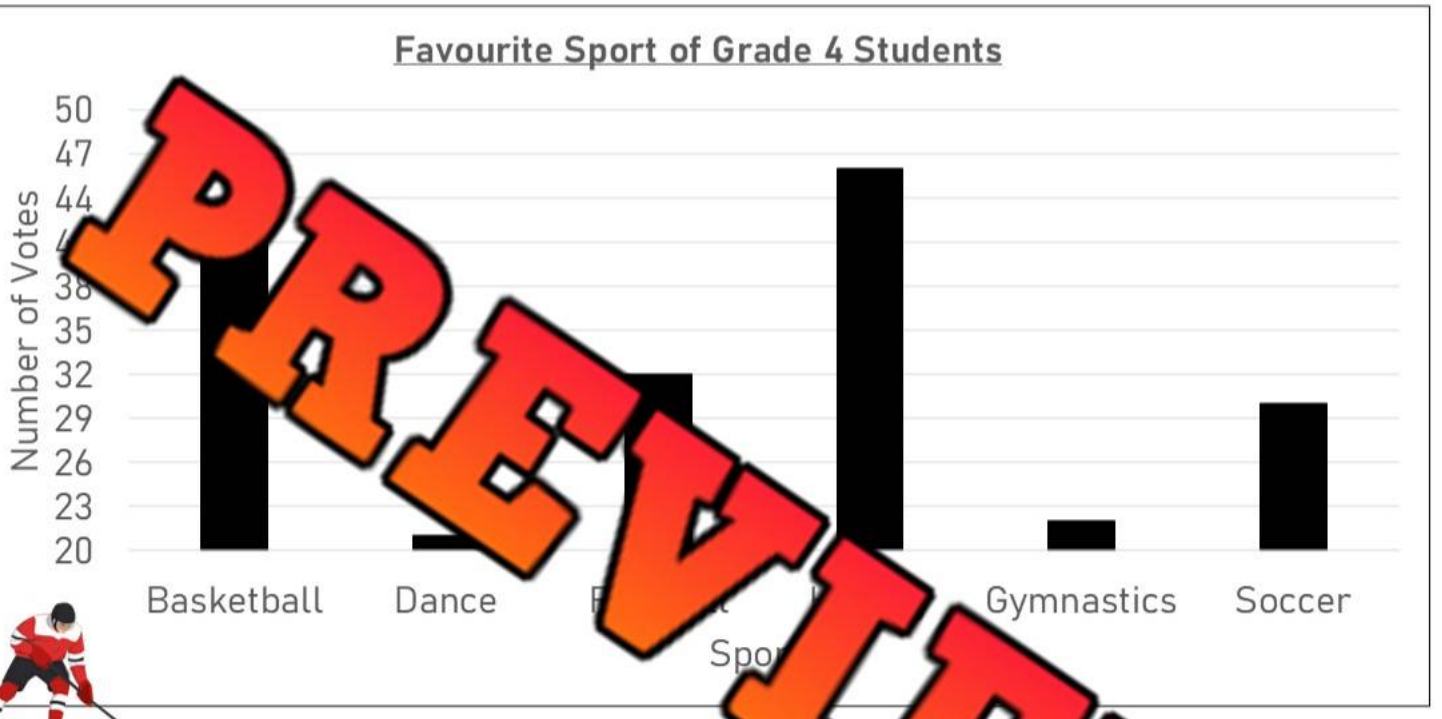
Name: _____ 51

Curriculum Connection
D1.6

Reading a Bar Graph – Line Break

The students in grade 4 were asked which sport was their favourite. The results have been displayed in the bar graph below. Notice the scale on the x-axis uses a line break.





PREVIEW

a) What number does the scale on the y-axis start with?	
b) What is the scale on this graph? What does it go up by?	
c) What is the title of the bar graph?	
d) What are the 2 labels (titles) for the x and y axis?	(x)_____ (y)_____
e) How many more votes did hockey get over dance?	
f) How many students participated in the survey?	

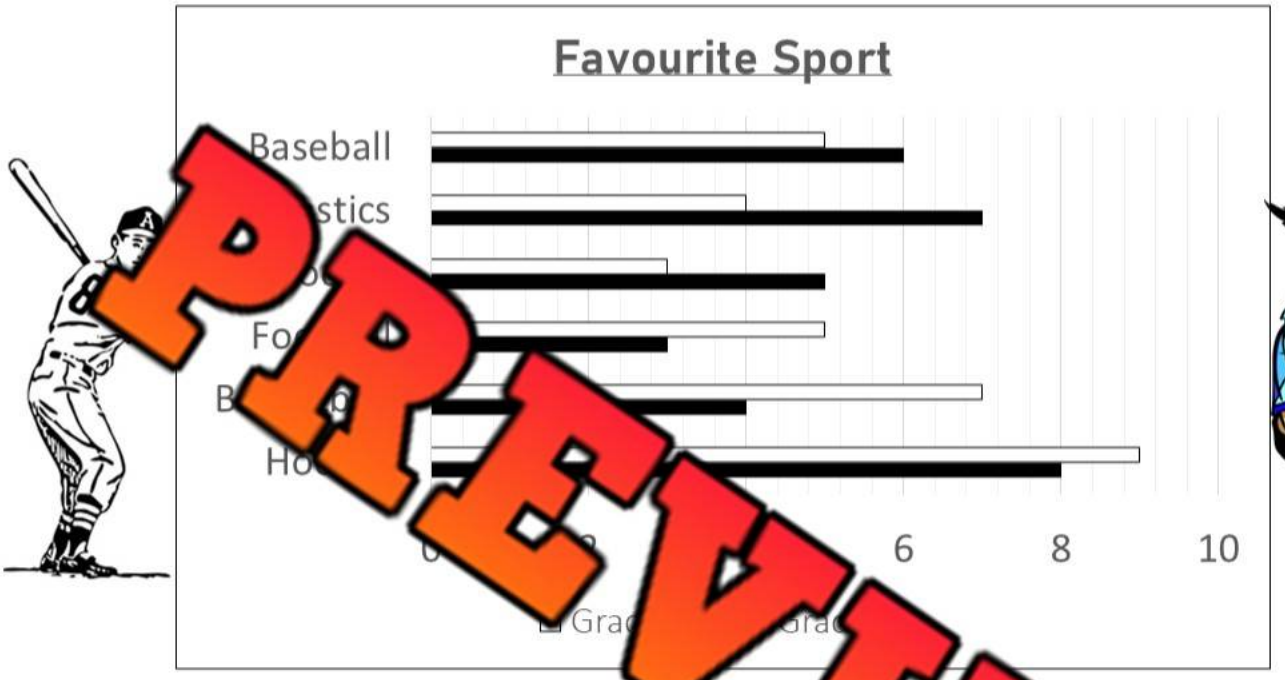
© Super Simple Sheets

Name: _____ 55

Curriculum Connection
D1.5, D1.6

Horizontal Double-Bar Graph

The grade 4s and 5s were asked which sport they liked the best. The results have been displayed below in a horizontal double bar graph.



PREVIEW

Sport	Baseball	Gymnastics	Socc	Footh	ketball	Hockey
Grade 4						
Grade 5						

a) Which sport was the most popular for grade 5s?		
b) Which sport was the least popular for grade 4s?		
c) How many grade 4's and 5's chose gymnastics as their favourite?		
d) What is the mode for grade 4s? Grade 5s?	Gr 4s	Gr 5s
e) How many more grade 4s liked gymnastics than grade 5s?		
f) How many grade 5's were surveyed?		
g) How many total kids were surveyed?		

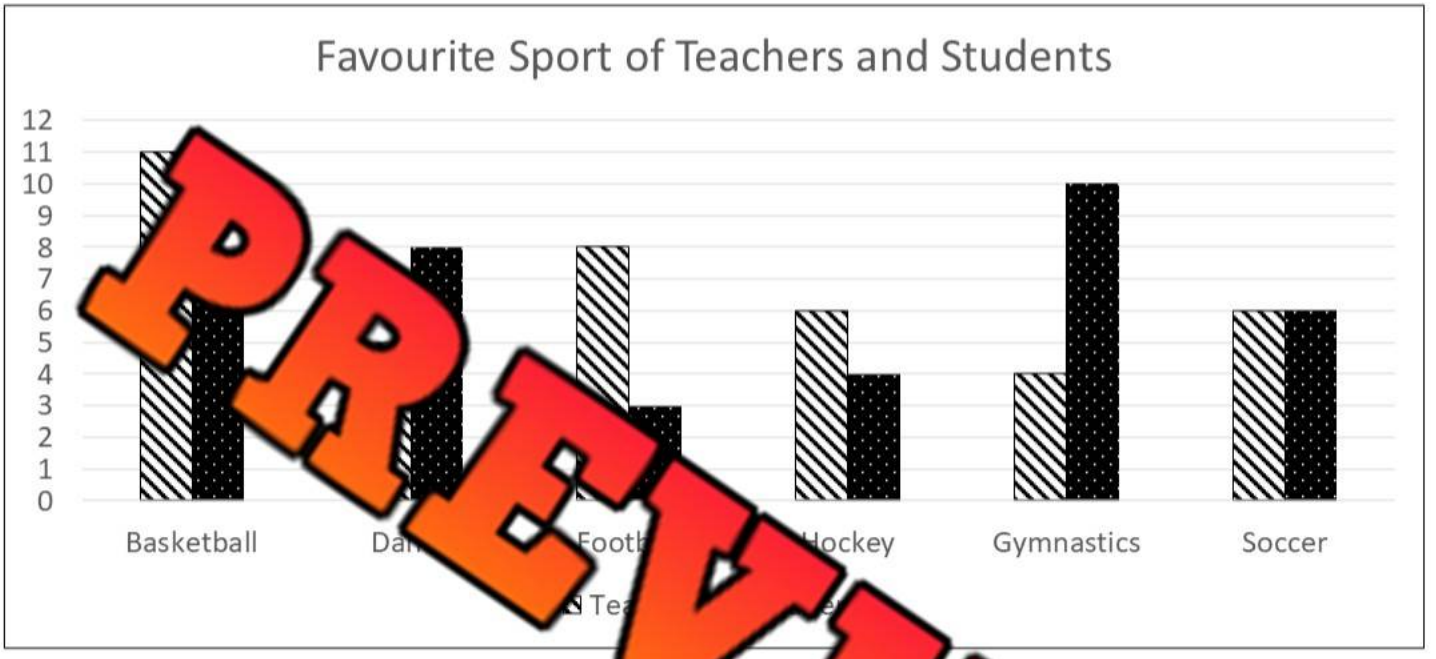
© Super Simple Sheets

Name: _____ 56

Curriculum Connection
D1.5, D1.6

Interpreting a Double Bar Graph

The teachers at Pineview Public School and students in grade 5 were asked which sport is their favourite. The results are displayed in the double bar graph below.



PREVIEW

Questions Fill in the frequency table and answer the questions

	Basketball	Dance	Football		Gym	Soccer
Teachers						
Students						

a) Which sport did the teachers like the most?		
b) Which sport got the most votes combined?		
c) Which sport did the teachers and students like the same?		
d) Did more teachers or students participate in the survey?		
e) What is the mode for the students? Teachers?	Students	Teachers
f) What could the title be for the x-axis → ?		
g) What could the title be for the y-axis ↑ ?		

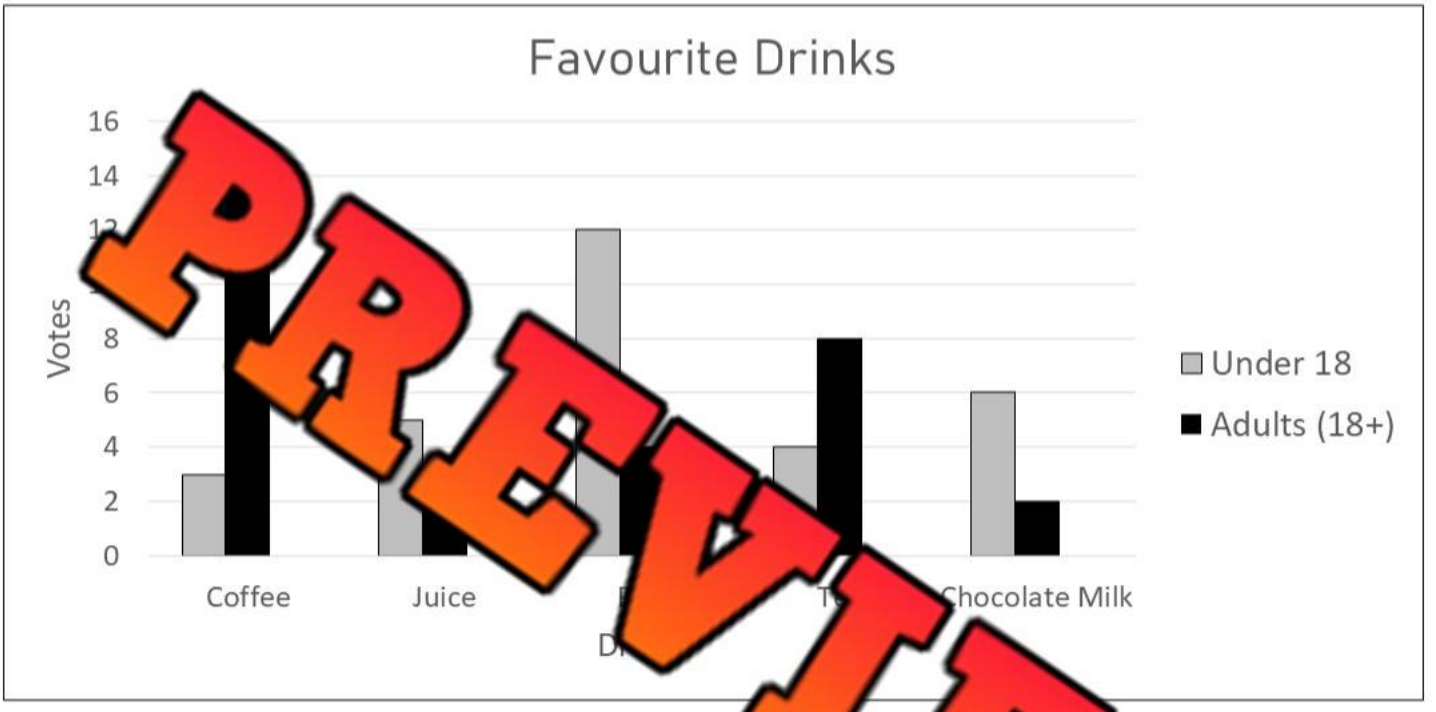
© Super Simple Sheets

Name: _____ 58

Curriculum Connection
D1.5, D1.6

Interpreting a Double Bar Graph – Favourite Beverage

A restaurant wants to know which drinks to keep in stock. They decide to sample two different age groups – adults (18+) and people under 18. They randomly select 30 individuals from each group.



PREVIEW

Questions Fill in the frequency table and a[illegible] questi[illegible]

Age Group	Coffee	Juice	Pop	T[illegible]	[illegible] Milk
Under 18					
Adults (18+)					

a) How many people in each age group were surveyed?	U18	Adults
b) Which drinks would you keep in stock?		
c) What is the mode for people under 18 (U18)? Adults?	U18	Adults
d) How many more adults preferred coffee than people under 18?		
e) How many more people under 18 preferred pop than adults?		

© Super Simple Sheets

Curriculum Connection
D1.6

Exit Cards

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

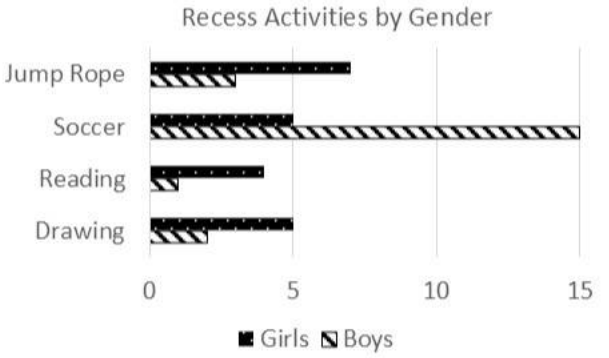
Name: _____



1) How many more boys liked soccer than girls liked drawing?

2) Which activity has the lowest number of students combined?

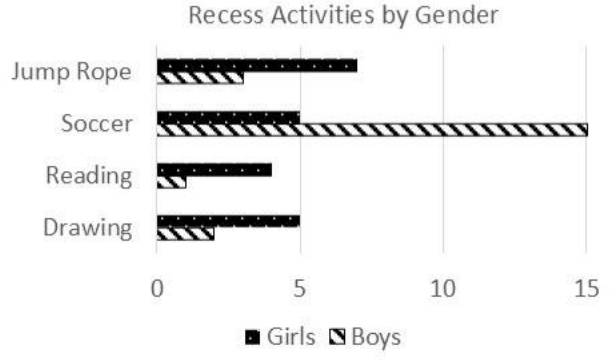
Name: _____



1) How many more boys liked soccer than girls liked drawing?

2) Which activity has the lowest number of students combined?

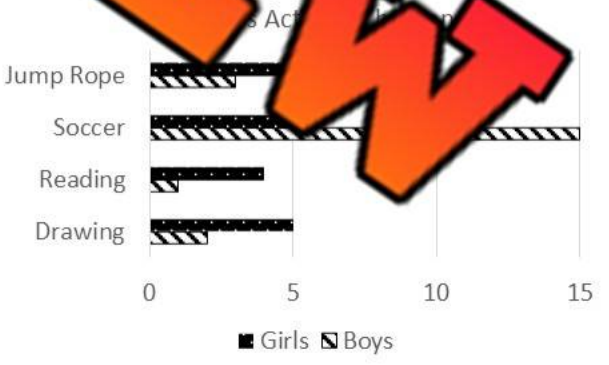
Name: _____



1) How many more boys liked soccer than girls liked drawing?

2) Which activity has the lowest number of students combined?

Name: _____



1) How many more boys liked soccer than girls liked drawing?

2) Which activity has the lowest number of students combined?

PREVIEW

© Super Simple Sheets

Name: _____ 62

Curriculum Connection
D1.6

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 bar graph and answer questions to earn the opportunity to flip a bottle or cup. This activity combines data interpretation skills with a physical challenge, adding excitement and a competitive element to learning.

Materials

What you will need for the activity.

- B or cups g
- A sm tboard r t display bar graphs
- Timer (sto h martp pp)
- Question shee on th data
- Scoreboard to ke





Instructions

How you wi mpl

1. Divide the class into small teams, ideally of 5 tude ch.
2. Prepare a series of bar graphs to display c smart d, with corresponding question cards that ask about t gr
3. One team at a time comes to the front where the gr play
4. Display the first bar graph on the smartboard.
5. The first student from the active team reads the graph and sel 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 wins.

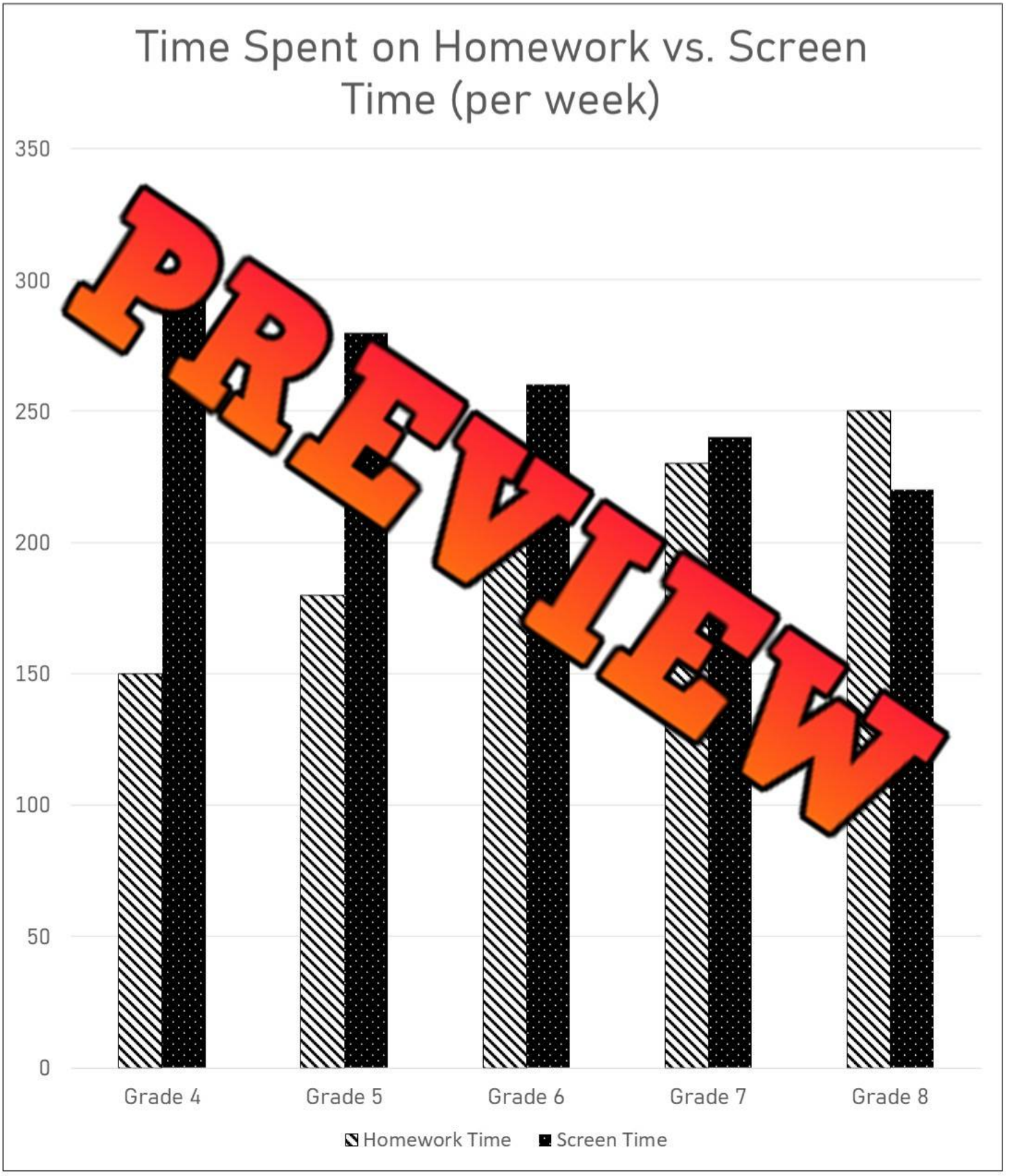
PREVIEW

© Super Simple Sheets

Name: _____ 63

Curriculum Connection
D1.6

Graph 1	Analyze the graph below



PREVIEW

© Super Simple Sheets

Name: _____ 66

Curriculum Connection
D1.6

Graph 4 | Analyze the graph below



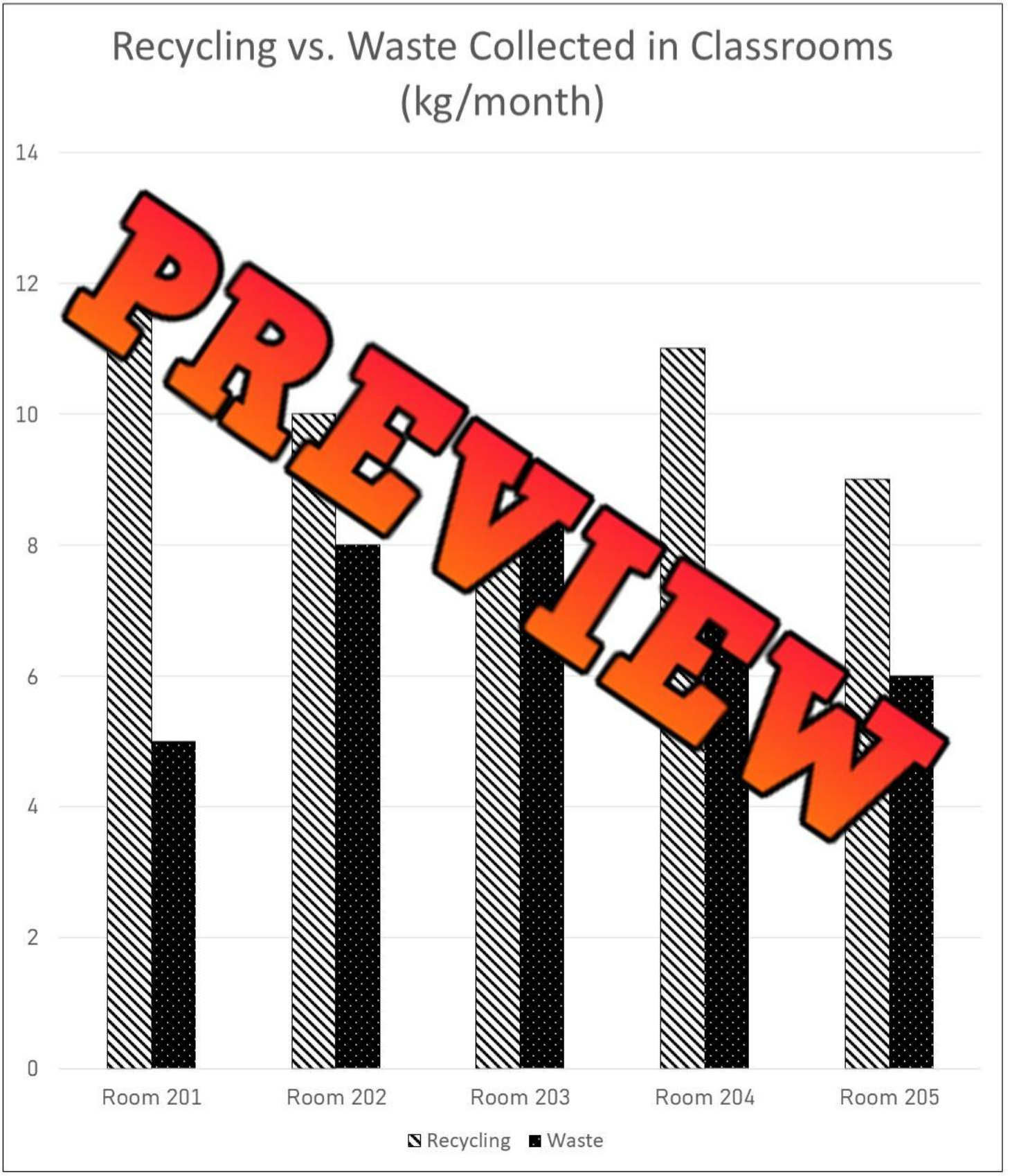
PREVIEW

© Super Simple Sheets

Name: _____ 67

Curriculum Connection
D1.6

Graph 5 | Analyze the graph below



PREVIEW

© Super Simple Sheets

Name: _____ 68

Curriculum Connection
D1.6

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

What is the title of the graph?
What is the title of the Y-axis?
What is the title of the X-axis?
What does each bar on the graph represent?
Which category shows the highest values for both bars?
Which category has the lowest values for both bars?
How many categories are displayed on the graph?
What is the range of values shown on the Y-axis?
What is the total number of units represented by all bars?
What is the difference in value between the highest and lowest categories for both bars?
Are there any categories that have similar values? Which ones?
How does the value of one specific category compare to others?
What could be a possible reason for the highest value?
What could be a possible reason for the lowest value?
What trends can you observe from the graph?
How might this data be useful?
If you could add another category to this graph, what would it be?
How would you describe the overall distribution of data?
What insights or conclusions can you draw from this graph?
How might the information on the graph impact decisions or opinions?

PREVIEW

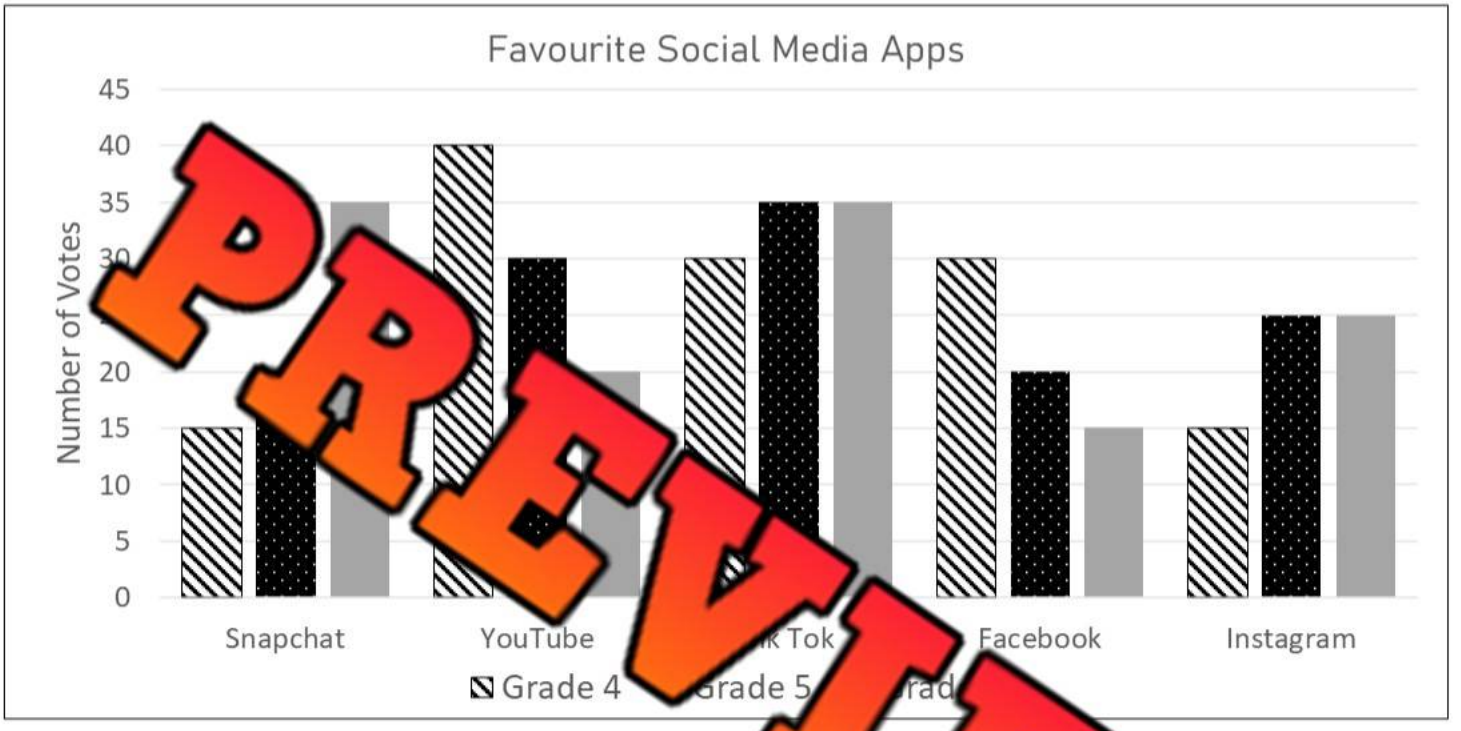
© Super Simple Sheets

Name: _____ 69

Curriculum Connection
D1.6

Multiple-Bar Graph – Favourite Social Media

The students in grade 4, 5, and 6 were asked which social media app was their favourite. The results have been sorted by grade in the multiple-bar graph below.



PREVIEW

Part 1 Fill in the frequency table by reading the double bar graph above

	4	5	
Snapchat	15		
YouTube			
Tik Tok			
Facebook	30		
Instagram			



Part 2 Answer the questions below

a) How many students in each grade were surveyed?	
b) Which social media was the most popular? How many votes did it get?	

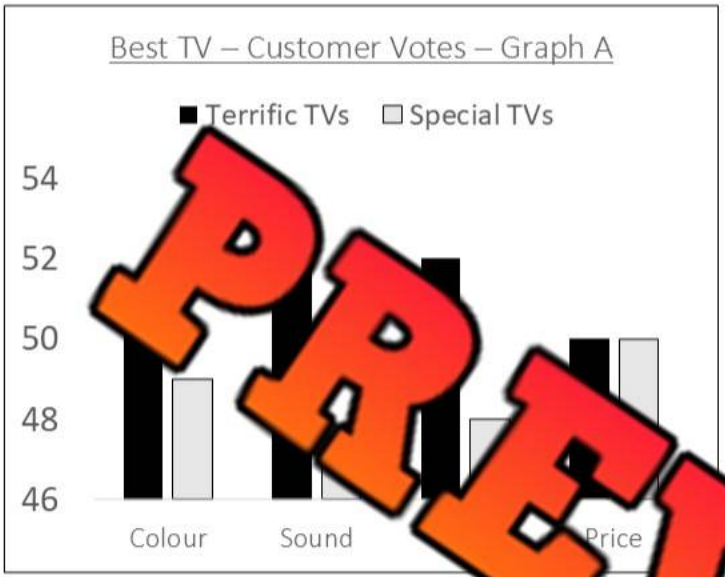
© Super Simple Sheets

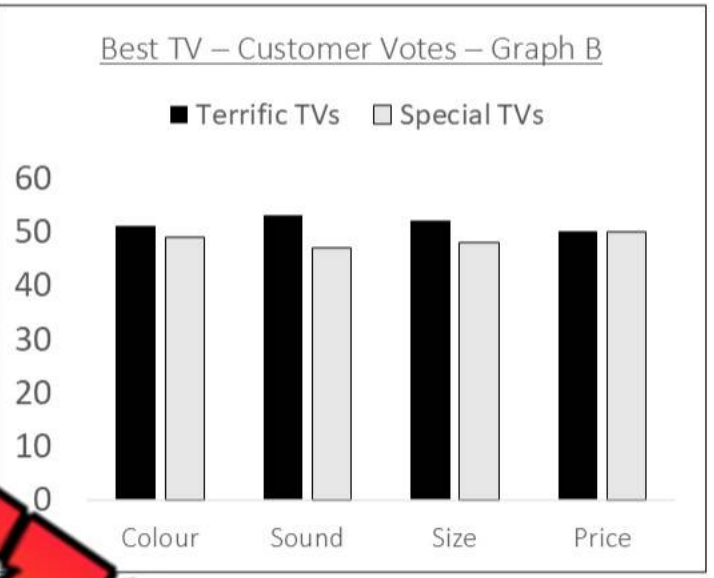
Name: _____ 70

Curriculum Connection
D1.6

Misleading Graph – Multiple-Bar Graph

Terrific TVs sells televisions. Their biggest competition is a company named, Special TVs. Terrific TVs completed a study that compared the two brands. The results are below.





PREVIEW

Questions What do you notice[illegible] the tw[illegible]phs?

a) Which graph would you use if you were Ter[illegible]Vs? W[illegible]

b) How many more votes in total did Terrific TVs get over Special TVs?

c) Is Terrific TVs a lot better than Special TVs? Explain.

d) Do you think it is fair that businesses create misleading graphs like this one? Explain.

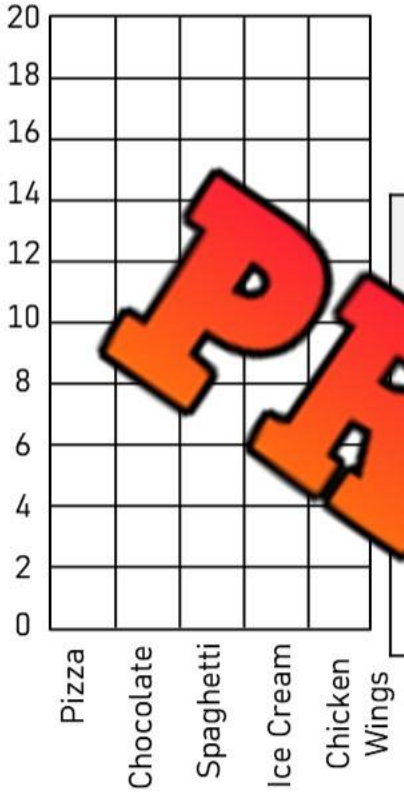
© Super Simple Sheets

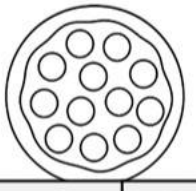
Name: _____ 71

Curriculum Connection
D1.3

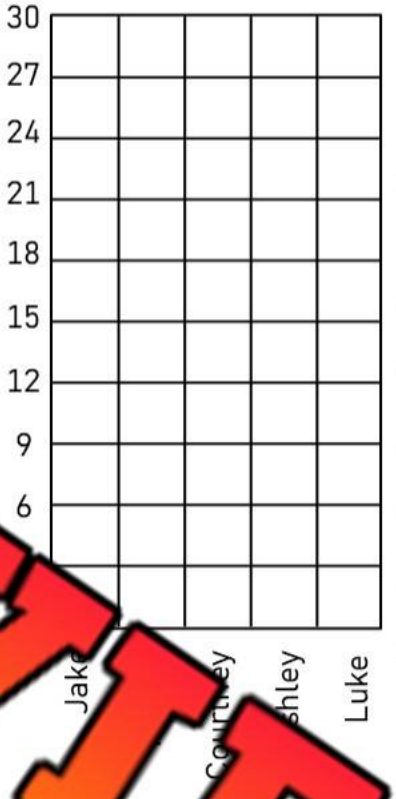
Drawing Bar Graphs

Questions | Draw the bars for each of the bar graphs below



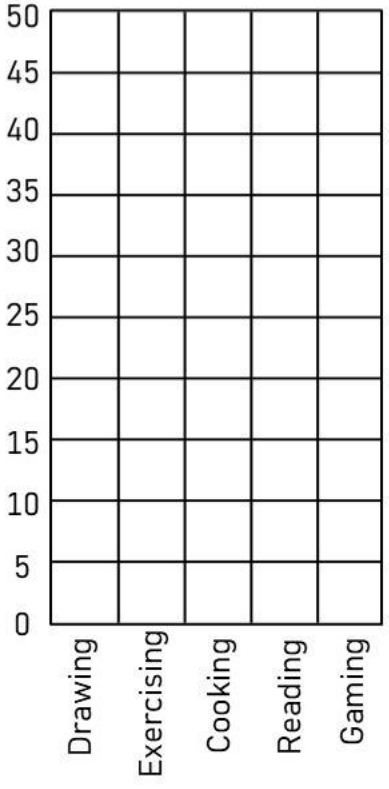


Favourite Food	# of votes
Pizza	16
Chocolate	14
Spaghetti	8
Ice Cream	9
Chicken Wings	11



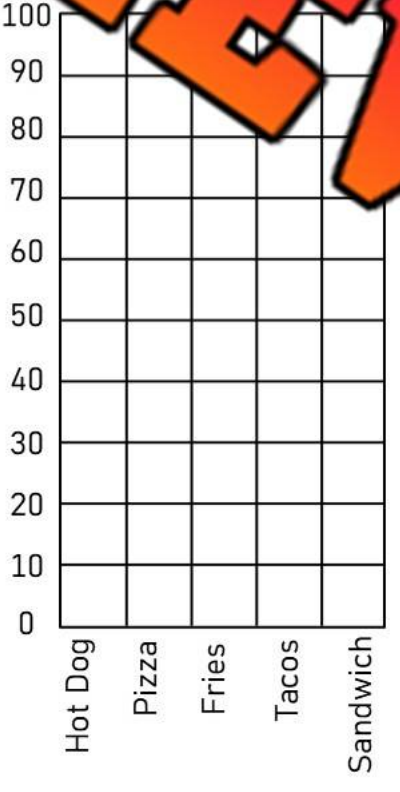


Player	# of points
Jake	21
Nathan	12
Courtney	18
Ashley	28
Luke	8





Favourite Hobby	# of votes
Drawing	30
Exercising	11
Cooking	29
Reading	13
Gaming	45





Favourite Food	# of votes
Hot Dog	40
Pizza	80
Fries	75
Tacos	35
Sandwich	25

PREVIEW

© Super Simple Sheets

Curriculum Connection
D1.3

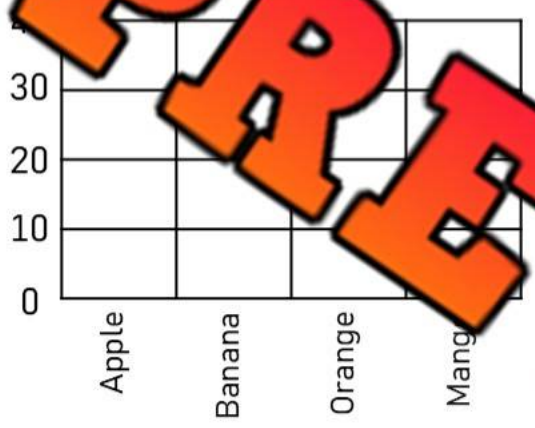
Exit Cards

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

Name: _____

Draw the bars for the bar graphs below.

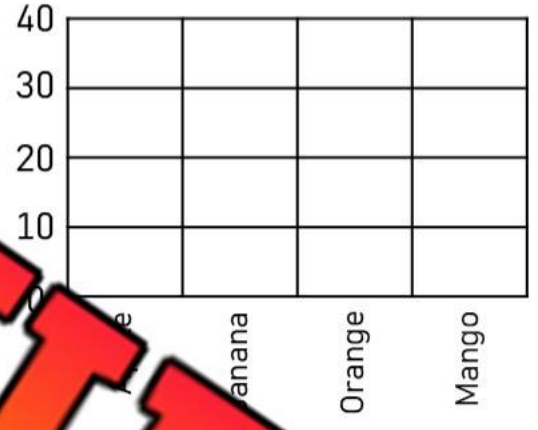
Fruit	Apple	Banana	Orange	Mango
Votes	30	10	35	20



Name: _____

Draw the bars for the bar graphs below.

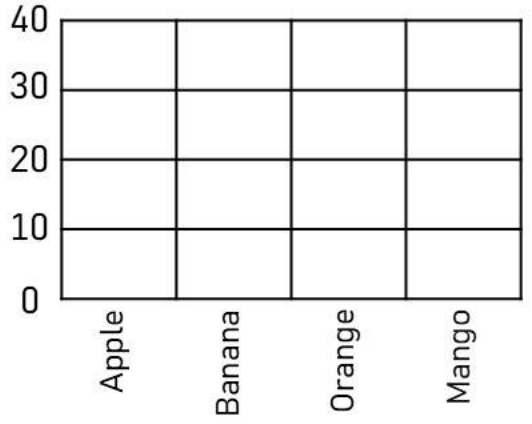
Fruit	Apple	Banana	Orange	Mango
Votes	30	10	35	20



Name: _____

Draw the bars for the bar graphs below.

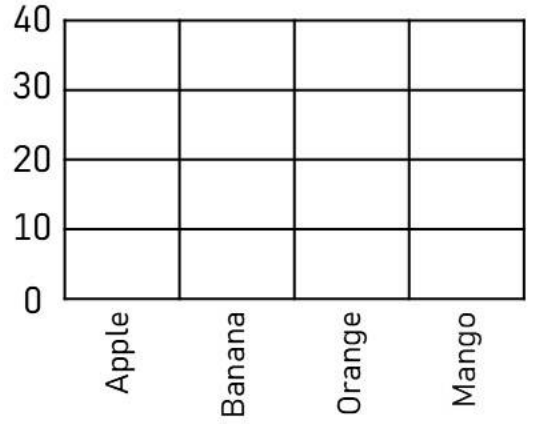
Fruit	Apple	Banana	Orange	Mango
Votes	30	10	35	20



Name: _____

Draw the bars for the bar graphs below.

Fruit	Apple	Banana	Orange	Mango
Votes	30	10	35	20



PREVIEW

© Super Simple Sheets

Name: _____ 74

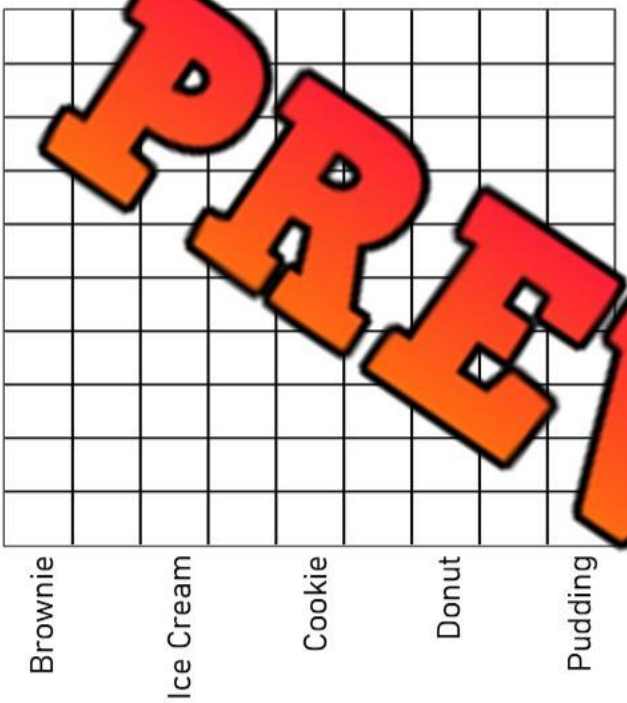
Curriculum Connection
D1.3

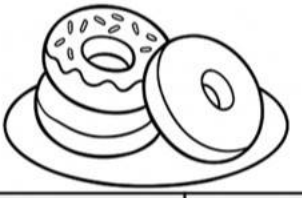
Creating Scale

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.

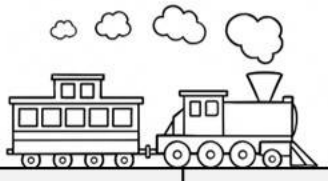
Step 1: Look at the data. Find the lowest and highest numbers.
Step 2: Count how many lines you have to plot your data.
Step 3: Decide what to go up by to ensure you have enough space to plot all the data.

PREVIEW

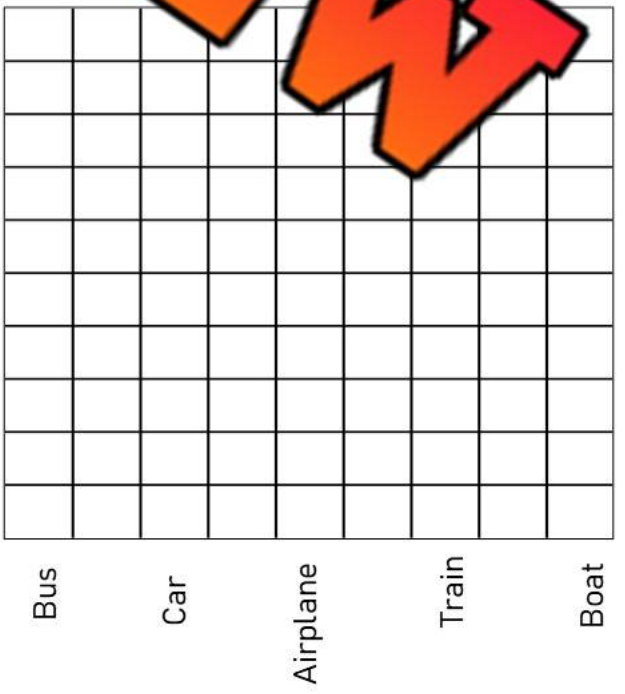




Favourite Dessert	# of votes
Brownie	21
Ice Cream	27
Cookie	15
D	12
P	9



Transportation Method	# of votes
Bus	10
Car	50
Airplane	90
Train	70
Boat	80



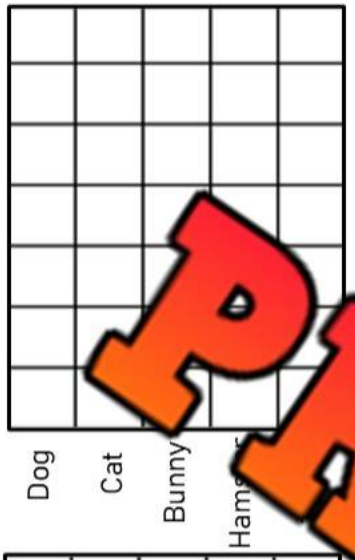
© Super Simple Sheets

Name: _____ 75

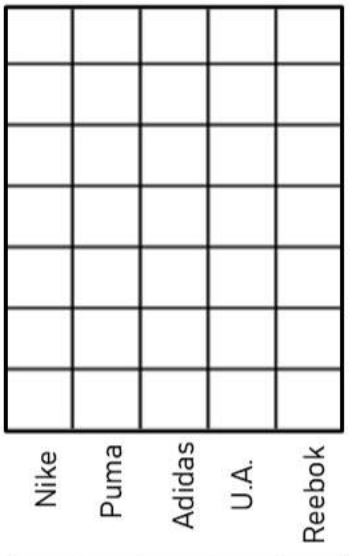
Curriculum Connection
D1.3

Creating Scale

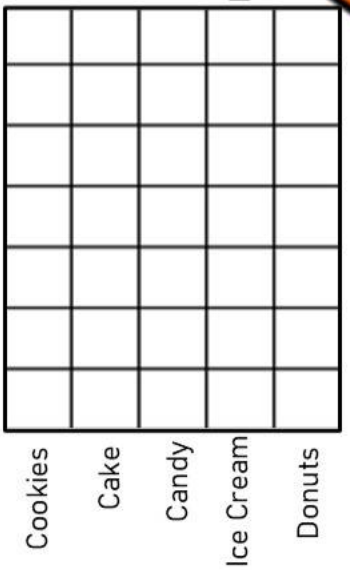
Questions 1) Read the numbers and decide which scale to use. 2) Draw your bar graphs



Pets	Votes
Dog	3
Cat	12
Bunny	18
Hamster	15
Turtle	9



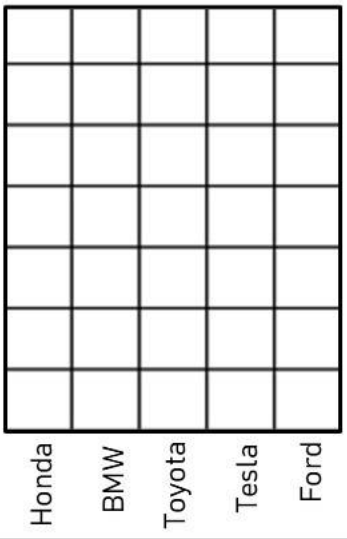
Brand	Votes
Nike	10
Puma	6
Adidas	3
Under Armour	8
Reebok	12



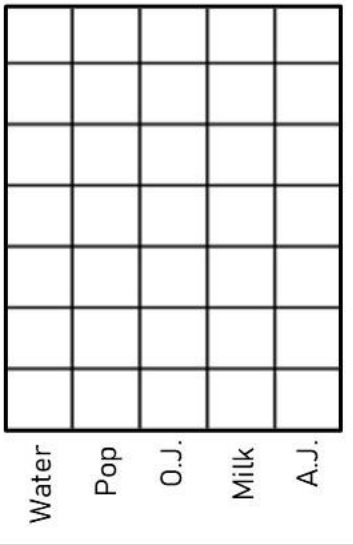
Votes	
Cookies	10
Cake	15
Candy	35
Ice Cream	25
Donuts	10



Subject	Votes
Math	8
Science	22
Gym	65
Art	41
Language	30



Cars	Votes
Honda	200
BMW	450
Toyota	225
Tesla	675
Ford	350



Drinks	Votes
Water	700
Pop	1300
Orange Juice	550
Milk	150
Apple Juice	825

PREVIEW

© Super Simple Sheets

Name: _____ 76

Curriculum Connection
D1.3

Frequency Table and Bar Graph

Alex asked his classmates which music genre they liked the best. His results are below:

Rock, rap, pop, rock, pop, country, country, rock, pop, pop, rap, jazz, country, country, rock, pop, pop, pop, country, rap, pop, rap, country, rock, rock, pop, country, country, rap

Direction Create a frequency table by interpreting the data and then graph it

Frequency					



Title:

PREVIEW

© Super Simple Sheets

Name: _____ 77

Curriculum Connection
D1.3

Frequency Table and Double Bar Graph

Cody asked 19 of his friends and their parents what their favourite meal of the day was. The results are below.

Friends: breakfast, breakfast, lunch, dinner, dinner, breakfast, breakfast, dinner, breakfast, breakfast, breakfast, dinner, lunch, breakfast, breakfast, dinner, dinner, breakfast, lunch

Parents: dinner, dinner, lunch, dinner, breakfast, lunch, dinner, dinner, dinner, lunch, breakfast, breakfast, dinner, dinner, lunch, lunch, lunch, dinner, dinner

Directio te a frequency table and then graph it in a double bar graph

e Grou	Breakfast	Lunch	Dinner
Frie			
Parents			



Title:

PREVIEW

© Super Simple Sheets

Name: _____ 78

Curriculum Connection
D1.3

Stem and Leaf – Bar Graph

The grade 4s were asked how many minutes they read last night.
Data Set: 12, 18, 22, 26, 34, 17, 12, 5, 9, 17, 23, 28, 33, 12, 15, 7, 25



Stem	Leaf
0	5, 7, 9
1	2, 15, 17, 17, 18
2	22, 23, 2
3	33,

Frequency Table	
Minutes Reading	**Data**
0–9	
10–19	
20–29	
30–39	

Graph Create a bar graph that represents the data in the stem and leaf plot

Title:

PREVIEW

Name: _____ 79

Curriculum Connection
D1.2, D1.3

Survey – Double Bar Graph – Eye Colour

Directions
1) Create two groups that you will ask the survey question, "what is your eye colour?"
2) Record the results in the table below. Make sure to keep the data from the two groups separate.

Survey Question	What is your eye colour?							
Category		Category		Category		Category		Category	
Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
Tally	Tally				Tally	Tally	Tally	Tally	Tally

PREVIEW

Interpreting Your Survey Results

1) Did any of the survey results surprise you?

2) Was there a big difference between the two groups? Explain why or why not.

3) What was the mode for group 1? Group 2?

Group 1:

Group 2:

© Super Simple Sheets

Name: _____ 80

Curriculum Connection
D1.2, D1.3

Creating a Double-Bar Graph – Eye Colour

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

X axis label ☐ Y axis label ☐ Title ☐ Scale ☐ Options ☐ Legend ☐



PREVIEW

© Super Simple Sheets

Name: _____ 85

Curriculum Connection
D1.2, D1.3

Double Bar Graph – Secondary Data

Directions

1) Think of 2 different populations that you can compare (countries, athletes, YouTubers)
2) Think of a research question that allows you to compare two different populations
   Examples: How many views did two YouTubers have in each of the last 4 years?
3) Make sure you have 4 or 5 data points so you can compare the two groups
   Examples: year (2015, 2016, etc.), season, athlete's season (first year, second year)

Surve[illegible]on							
[illegible]ory		Category		Category		Category	
Group 1	Group 2	Group [illegible]	[illegible]	Group 1	Group 2	Group 1	Group 2
Frequency	Frequency	Frequency	Freq[illegible]	Frequen[illegible]	[illegible]equency	Frequency	Frequency

PREVIEW

Interpreting Your Survey Results

1) What did you learn about the two groups? Write at least 2 things you learned.

2) Why do we use second-hand data? What does it allow us to do?

© Super Simple Sheets

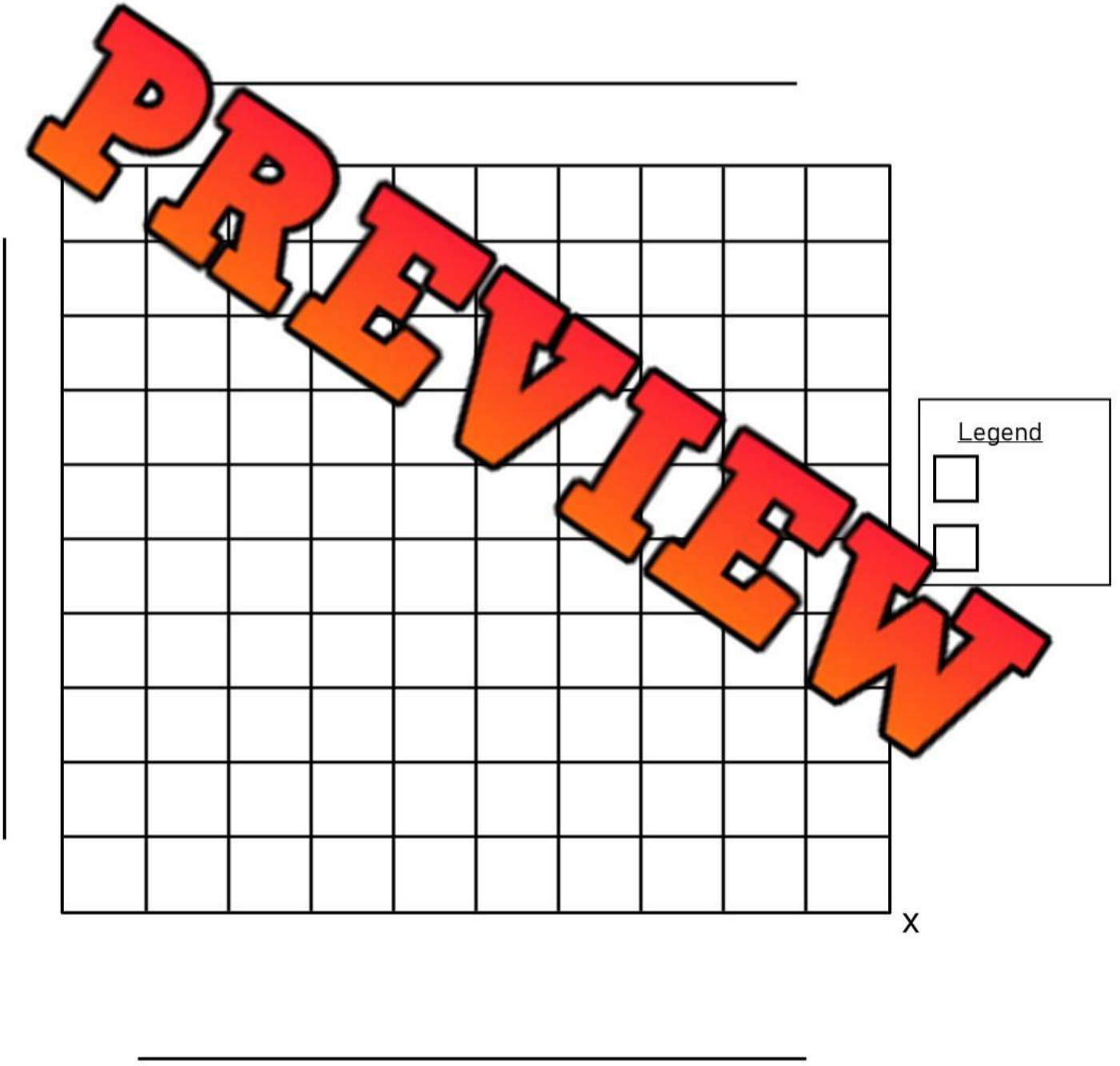
Name: _____ 86

Curriculum Connection
D1.2, D1.3

Double Bar Graph – Secondary Data

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

X axis label ☐ Y axis label ☐ Title ☐ Scale ☐ Options ☐ Legend ☐



PREVIEW

© Super Simple Sheets

Name: _____ 87

Curriculum Connection
D1.3

Multiple Bar Graph – Stem and Leaf

Steven asked the grade 4, 5, and 6 students how much television they watched on Saturday and Sunday. He organized the data in separate stem and leaf plots.

Saturday
Grade 4
TV Watched – Minutes

Stem	Leaf
0	
1	, 8
2	, 0, 0, 4
3	0, 0, 2
4	0, 0, 0, 0

Saturday
Grade 5
TV Watched – Minutes

Stem	Leaf
0	5, 5, 8
1	0, 0, 3
2	0, 5, 6, 8
3	0, 0, 2, 4, 5
4	0, 0, 3, 5

Saturday
Grade 6
TV Watched – Minutes

Stem	Leaf
0	5, 5, 5
1	0, 0
2	0, 5, 8
3	0, 0, 0, 0, 2, 9
4	5, 5, 5, 5, 8, 8

Sunday
Grade 4
TV Watched – Minutes

Stem	Leaf
0	2, 5, 7
1	0, 3, 5, 6
2	0, 0, 2, 4, 8
3	0, 0, 2
4	0, 0, 0, 2, 3

Sunday
Grade 5
TV W Minu

Stem	Le
0	5, 5
1	0, 0, 0, 3, 5
2	0, 3, 5
3	0, 0, 2, 4, 5, 7
4	0, 0, 0, 3, 4

Sunday
Grade 6
TV Watched – Minutes

m	Leaf
	5, 5
1	
2	
3	
4	, 5, 5, 6

PREVIEW

Table Add the total minutes watched by each grade on each night and fill in the frequency table

	Grade 4	Grade 5	Grade 6
Saturday			
Sunday			

© Super Simple Sheets

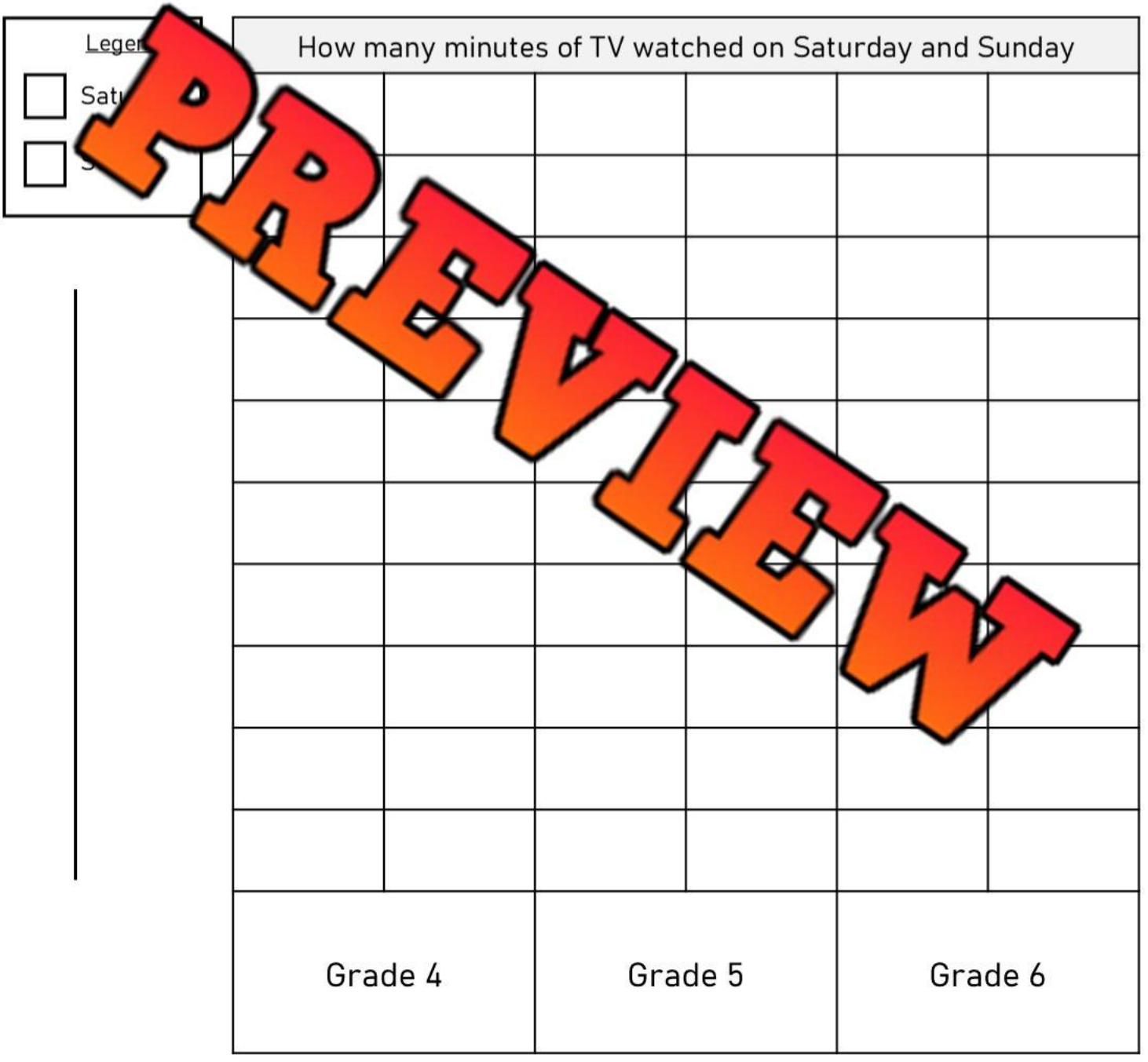
Name: _____ 88

Curriculum Connection
D1.3

Double Bar Graph – Stem and Leaf

Create a double bar graph that compares the total minutes watched on Saturday versus Sunday for each grade.

X axis label ☐ **Y axis label** ☐ **Title** ☐ **Scale** ☐ **Options** ☐ **Legend** ☐



PREVIEW

© Super Simple Sheets

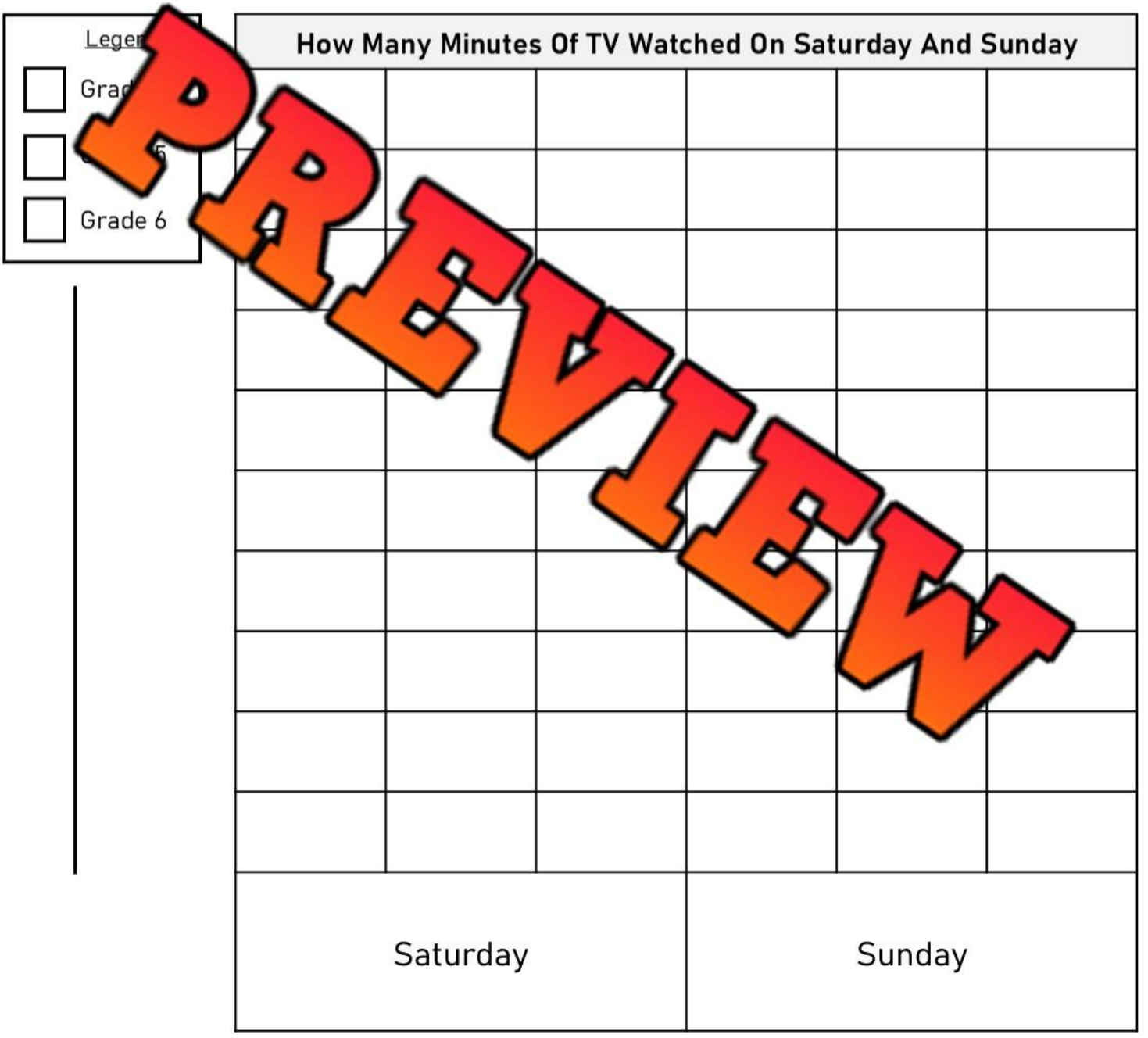
Name: _____ 89

Curriculum Connection
D1.3

Multiple Bar Graph – Stem and Leaf

Create a multiple bar graph that compares how many total minutes of TV were watched per grade on Saturday and Sunday.

X Axis Label ☐ **Y Axis Label** ☐ **Title** ☐ **Scale** ☐ **Options** ☐ **Legend** ☐



PREVIEW

© Super Simple Sheets

Name: _____ 92

Curriculum Connection
D1.4

Creating an Infographic

An **infographic** shares information about a topic in multiple ways. Infographics are great for displaying data that can teach an audience about a topic.

Directions Display the data set in different ways below. Write in the boxes and draw pictures

50 grade 3s and 50 grade 4s from across Ontario were surveyed, asking what their favourite s[ubject] in school is. The results are in!

PREVIEW

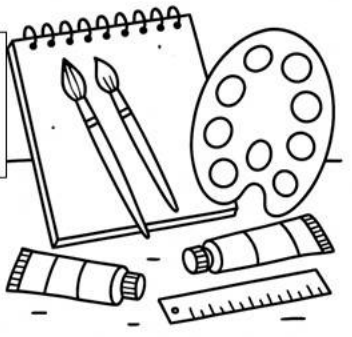
		ce		Gym		Art		Drama	
Gr 3	Gr 4		Gr	Gr 3	Gr 4	Gr 3	Gr 4	Gr 3	Gr 4
2	2		1		30	8	6	8	2

Legend

☐

☐

2 students
their
ect



Only 4% of students prefer math as their favourite subject

Stem	Leaf

© Super Simple Sheets

Name: _____ 93

Curriculum Connection
D1.4

My Infographic

Title: _____



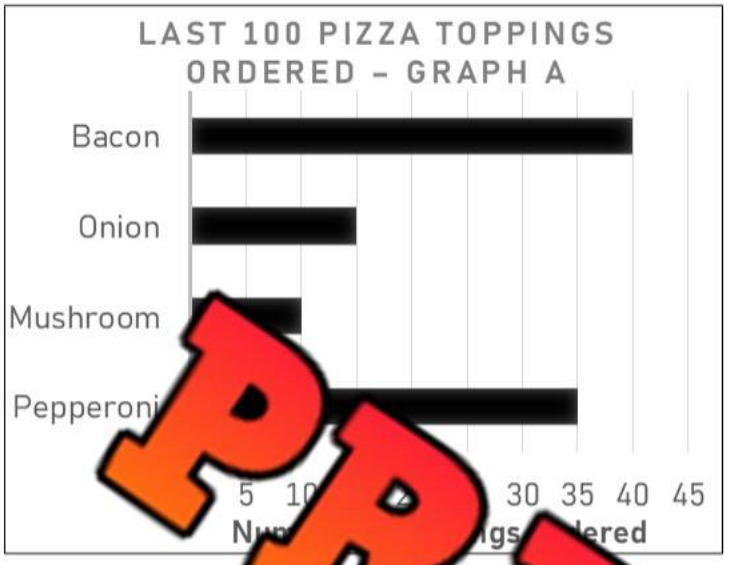
PREVIEW

© Super Simple Sheets

Name: _____ 94

Curriculum Connection
D1.6

Displaying Data Using Different Graphs



	Last 100 Pizza Toppings Ordered – Graph B
Bacon	
Onion	
Mushroom	
Pepperoni	

= 5 toppings

PREVIEW

Questions

An[illegible] the [illegible]ow

a) Which graph displays the [illegible]ely? Explain your choice.

b) If you were reading this data quickly, which graph [illegible] fa[illegible]re[illegible]? Explain.

c) When do you think a bar graph is better than a pictograph?

d) When do you think a pictograph is better than a bar graph?

© Super Simple Sheets

Name: _____ 97

Curriculum Connection
D1.6

Choosing an Appropriate Graph

Questions Read the data below and decide which type of graph you would use to represent the data

1) You surveyed your classmates asking which season is their favourite. The results are listed below.



Summer	Fall	Winter	Spring	Summer
7	4	2	5	7

Which t[illegible]p[illegible]ould you use to represent the data? Explain your choice.

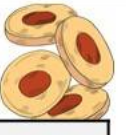
2) You surveyed the gra[illegible]5s a[illegible]t their favourite type of chips are. The results are be[illegible]



	Sour Cream	A[illegible]sed	[illegible]d Vinegar	Regular
Grade 4	7	8		5
Grade 5	5	9		10

Which type of graph would you use to represent t[illegible]? Explai[illegible] choice.

3) You surveyed your classmates asking which cookie is their favourite. The results are below.



Chocolate Chip	Oatmeal	Double Chocolate	Sugar	Peanut Butter
18	8	24	12	35

Which type of graph would you use to represent the data? Explain your choice.

PREVIEW

© Super Simple Sheets

Name: _____ 98

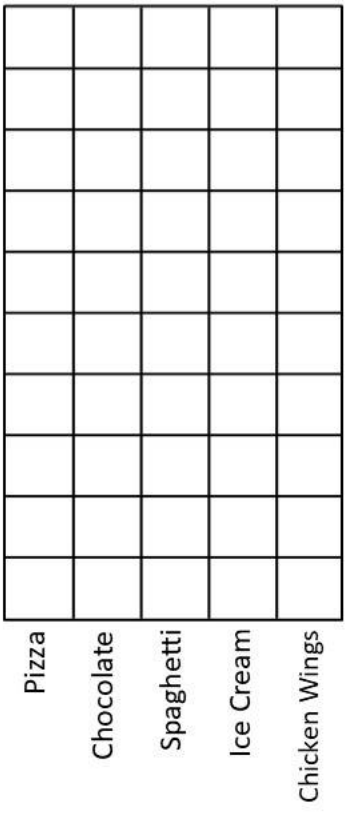
Unit Quiz – Data Literacy

Part 1 Read the description of the data and circle if it is quantitative or qualitative

1) Number of cans collected for the food drive	Quantitative Qualitative
2) Heigh[illegible] the animals in a zoo	Quantitative Qualitative
3) F[illegible] he grade 4 students	Quantitative Qualitative
4) Snowfall [illegible]	Quantitative Qualitative
5) Which hobby do y[illegible] m	Quantitative Qualitative

PREVIEW

Part 2 Draw the bars for each of the [illegible] graph[illegible] calculate the averages

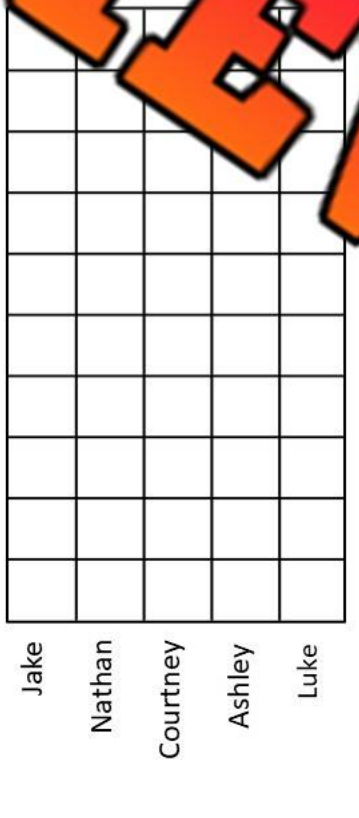


Favourite Food	# of votes
Pizza	12
Chocolate	6
Spaghetti	8
Ice Cream	16
Chicken Wings	6

Mode = _____

Median = _____

Mean = _____



[illegible]yer	# of points
[illegible]	15
N[illegible]	30
Co[illegible]ney	15
Ashley	21
Luke	9

Mode = _____

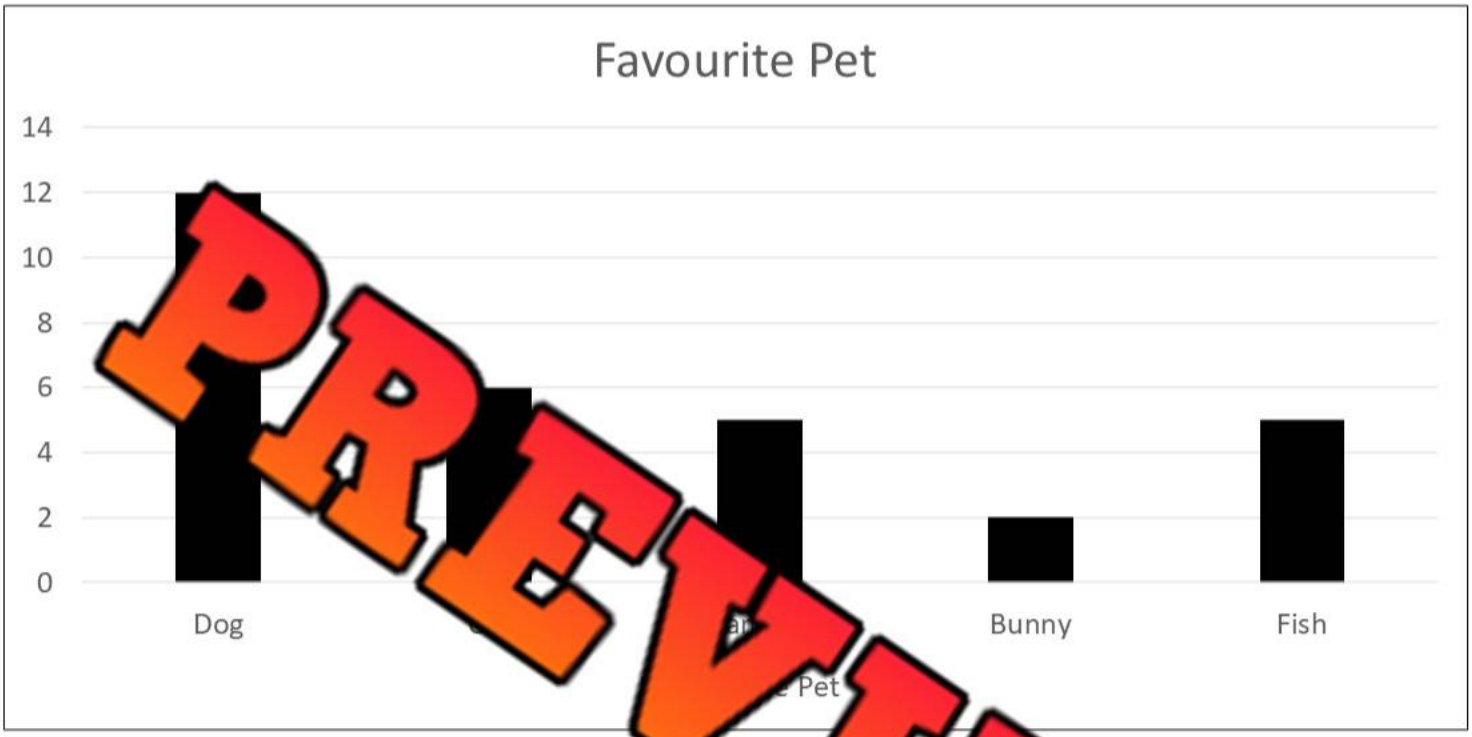
Median = _____

Mean = _____

© Super Simple Sheets

Part 3 Read the graph and answer the questions below

Mr. Wilson's class was asked what their favourite pet is. The results are graphed below.



PREVIEW

Answer the following questions about the gr bove

1. **Fill in the frequency table**

Pet	Dog	Cat	Hamster	B h
Votes				

2. **Fill in the table**

Mean	**Mode**	**Median**

3. **How many students were surveyed?**	

© Super Simple Sheets

Part 4 Graph the data below in a multiple bar graph

The grade 3s and 4s were asked which entertainment they liked the best. The results are below.

Movies		TV Shows		YouTube		Video Games		Music	
Gr 3	Gr 4	Gr 3	Gr 4	Gr 3	Gr 4	Gr 3	Gr 4	Gr 3	Gr 4
5	10	10	5	25	15	35	20	10	5



PREVIEW

Part 5 Complete stem and leaf plots

1. Plot the data set:
34, 42, 37, 65, 63, 46, 74, 61, 39

Stem	Leaf

2. Read the stem and leaf plot and write the data set on the line.

Stem	Leaf
2	1, 5
4	2, 6
5	5, 6
6	6
7	1, 9

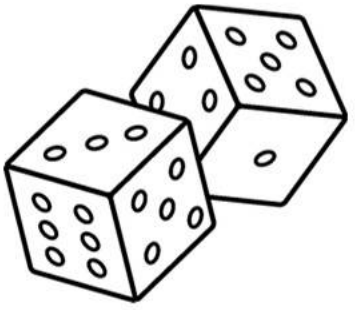
Data Set: _____

© Super Simple Sheets



Grade 4
D2. Probability

	Curriculum Expectations	Pages That Cover the Expectations
D2.1	Use mathematical language, including the terms “impossible”, “unlikely”, “equally likely”, “likely”, and “certain”, to describe the likelihood of events happening, represent this likelihood on a probability line, and use it to make predictions and informed decisions	102 - 125
D2.2	Make and test predictions about the likelihood that the mean, median, and mode(s) of a data set will be the same for data collected from different populations	126 - 136





© Super Simple Sheets

Name: _____ 102

Curriculum Connection
D2.1

Describing the likelihood – Equally Likely

Equally likely means that there is an even chance that an outcome will happen. This means during the event, the outcome has the same chance of either happening or not happening.



For example: Flipping a coin and it landing on heads is an even chance.
Explanation: There is an equal chance of the coin landing heads and not landing heads (tails).

PREVIEW

Part 1

de in half of the shapes to split them equally

1)

2)

3)

4)

5)

Part 2

Shade in half of the squares in the shapes bel

1)

2)

3)

4)

5)

6)

7)

8)

9)

© Super Simple Sheets

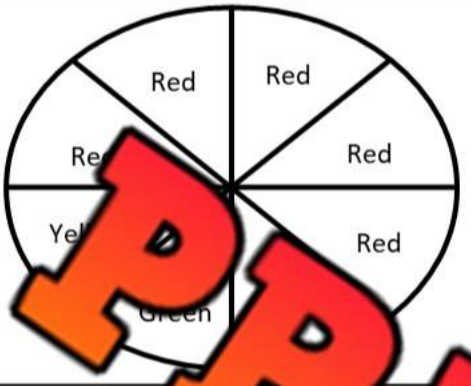
Name: _____ 104

Curriculum Connection
D2.1

Describing the Likelihood – Unlikely, Likely

Instruction Read the spinner and describe if the event is unlikely or likely to happen

1)

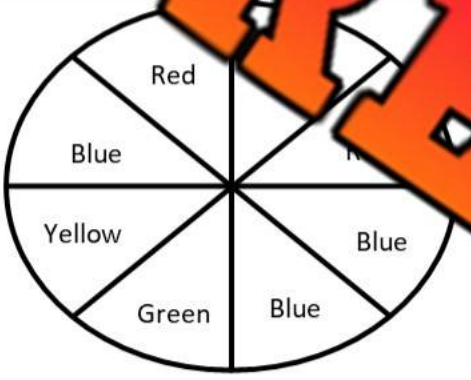


a) Spinning a red is _____

b) Spinning a blue is _____

c) Spinning a blue or red is _____

2)

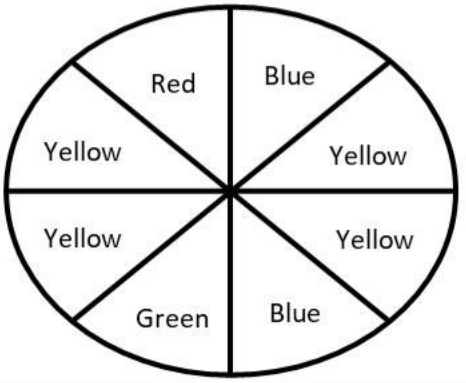


a) Spinning a red is _____

b) Spinning a blue is _____

c) Spinning a yellow or red is _____

3)

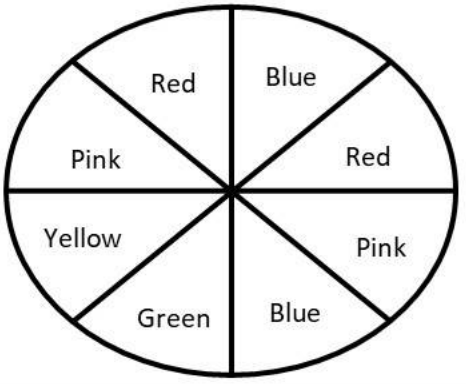


a) Spinning a red is _____

b) Spinning a green is _____

c) Spinning a yellow or red is _____

4)



a) Spinning a red or green is _____

b) Spinning a blue, pink or red is _____

c) Spinning a green or pink is _____

PREVIEW

© Super Simple Sheets

Name: _____ 105

Curriculum Connection
D2.1

Describing the Likelihood of Events

Instruction Circle the likelihood of the event happening

1) You will have a substitute teacher tomorrow.



Certain
More Likely
Equally Likely
Less Likely
Impossible

2) You will go to the bathroom today.



Certain
More Likely
Equally Likely
Less Likely
Impossible

3) You will s… today.



Certain
…ikely
Eq…
Less Likely
Impossible

4) You will eat some chocolate today?



Certain
More Likely
Equally Likely
Less Likely
Impossible

5) It will snow on a warm day.



Certain
More Likely
Equally Likely
Less Likely
Impossible

6) Yo… head… flipping a coin.



…ain
…ely
…ly Likely
Less Likely
Impossible

7) You will see a motorcycle today.



Certain
More Likely
Equally Likely
Less Likely
Impossible

8) You will slam dunk a basketball today.



Certain
More Likely
Equally Likely
Less Likely
Impossible

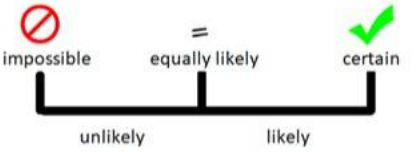
PREVIEW

Name: _____ 106

Curriculum Connection
D2.1

Describing the Likelihood of Events

We can describe the likelihood of events by using the following terms:
impossible, unlikely, equally likely, likely, certain



Impossible = Cannot happen
Unlikely = Will probably not happen
Equally likely = There is an equal chance it could happen and that it won't happen
Likely = Wi robably happen
Certain = nitely happen

Instru Us ms to describe the likelihood of the events below

1) You will have am t	
2) You will drink water tod	
3) You will play on an electronic tod	
4) You will win the lottery today	
5) You will see an alien today	
6) You will ride in a vehicle today	
7) You will sleep tonight	
8) You will eat chips today	
9) You will go swimming today	
10) You will play a sport today	

PREVIEW

Name: _____ 107

Curriculum Connection
D2.1

Describing the Likelihood of Events

Instruction Circle the probability of each event happening on the probability line

1. You will win the lottery today.

Impossible — Unlikely — Even Chance — Likely — Certain

2. You will [illegible] a dog today.

Unlikely — Even Chance — Likely — Certain



3. You will [illegible] today.

[illegible] — Likely — Certain

4. You will find treasure when you [illegible] success.

Impossible — Unlikely — [illegible] — Certain



5. You will drive a motorcycle today.

Impossible — Unlikely — Even Chance — [illegible]

6. You will go on a computer today.

Impossible — Unlikely — Even Chance — Likely — Certain



7. You will eat pizza today.

Impossible — Unlikely — Even Chance — Likely — Certain

8. You will grow wings and fly away.

Impossible — Unlikely — Even Chance — Likely — Certain



PREVIEW

© Super Simple Sheets

Curriculum Connection
D2.1

Exit Cards

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

Name: _____

Circle the probability of each event happening on the probability line.

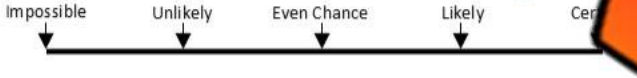
1. You will have pizza for dinner tonight.



2. You will get a surprise present today.



3. You will see a bird flying in the sky today.



Name: _____

Circle the probability of each event happening on the probability line.

1. You will have pizza for dinner tonight.

Impossible Unlikely Even Chance Likely Certain

2. You will get a surprise present today.

Impossible Unlikely Even Chance Likely Certain

3. You will see a bird flying in the sky today.

Impossible Unlikely Even Chance Likely Certain

Name: _____

Circle the probability of each event happening on the probability line.

1. You will have pizza for dinner tonight.

Impossible Unlikely Even Chance Likely Certain

2. You will get a surprise present today.

Impossible Unlikely Even Chance Likely Certain

3. You will see a bird flying in the sky today.

Impossible Unlikely Even Chance Likely Certain

PREVIEW

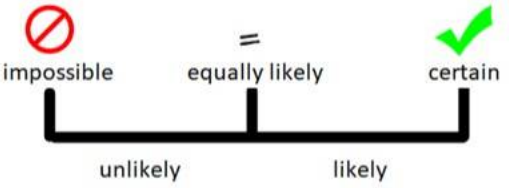
© Super Simple Sheets

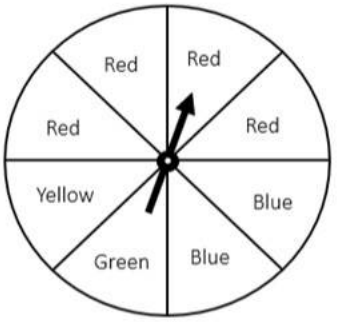
Name: _____ 109

Curriculum Connection
D2.1

Describing the Likelihood of Events

The spinner has different coloured parts on it. When you spin the arrow, it will land on one of the colours. The likelihood of landing on a green part is unlikely.





Instructio ...cle the likelihoods of the events below using the probability line

PREVIEW

1. What ... the li... ...lan...ing on a red part?

Impossible ... Chance Likely Certain

2. What is the likelihood of lan...g o...

Impossible Unlikely Even Chance Certain

3. What is the likelihood of landing on a yellow part

Impossible Unlikely Even Chance Likely ...

4. What is the likelihood of landing on a red or yellow part?

Impossible Unlikely Even Chance Likely Certain

5. What is the likelihood of landing on a red, blue, green, or yellow part?

Impossible Unlikely Even Chance Likely Certain

© Super Simple Sheets

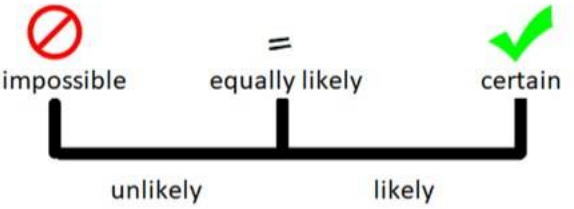
Name: _____ 111

Curriculum Connection
D2.1

Likelihood of Events – Rolling a Dice

Rolling a Dice

A dice has 6 sides. Each side has a number of dots between 1 and 6. When you roll a dice, you have an unlikely chance of rolling a certain number.





Part 1 Use the terms to describe the likelihood: unlikely, equally likely, likely, certain

1. What is the likelihood of you rolling a 1?	
2. What is the likelihood of you rolling a 5?	
3. What is the likelihood of you rolling a 3?	
4. What is the likelihood of you rolling a 2, 4, or 6?	
5. What is the likelihood of you rolling an odd number?	
6. What is the likelihood of you rolling a 7?	

Part 2 Write your own dice rolling events that would represent the following

1) Impossible	
2) Certain	
3) Likely	
4) Unlikely	
5) Equally likely	

PREVIEW

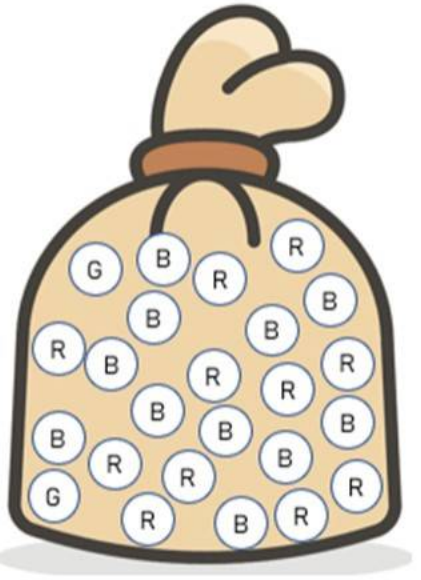
© Super Simple Sheets

Name: _____ 113

Curriculum Connection
D2.1

Describing the Likelihood of Events

There are 24 candies in a bag. Describe the likelihood of the events below.



Frequency Table Fill in the frequency table below

Candy Colour	Frequency
Red	

PREVIEW

Part 1 Use these ... to ... likelihood: Impossible, ... likely, certain

1. What is the likelihood of pulling out a ... candy?	
2. What is the likelihood of pulling out a blue candy?	
3. What is the likelihood of pulling out a green ca...	
4. What is the likelihood of pulling out a red, blue, or gr... ?	
5. What is the likelihood of pulling out a red or green candy?	
6. What is the likelihood of pulling out a red candy?	

Part 2 Write your own events that would represent the probabilities below

1) Impossible	
2) Likely	
3) Unlikely	

© Super Simple Sheets

Name: _____ 115

Curriculum Connection
D2.1

Activity Title: 4-Corners Probability Game

Objective

What are we learning about?

Students will learn to describe the likelihood of events using the terms impossible, unlikely, equally likely, likely, and certain.

Materials

What you will need for the activity.

- A [illegible] events [illegible]os prepared by the teacher
- Four signs la[illegible], a[illegible]D (one for each corner of the room)



Instructions

How y[illegible]ompl[illegible]ctivity

1. Begin by explaining the different te[illegible]d to d[illegible] the likelihood of events: impossible, unlikely, equally likely, [illegible]y, and c[illegible]. Pr[illegible]e examples to ensure students understand each term.

2. Show the students one of the events or scenar[illegible]s f[illegible]ist pr[illegible]. You will need to project the question to the class.

3. Present multiple-choice options for the events that could be us[illegible]e event. Each corner of the room will represent one of the multi[illegible]vers.

4. Read out the term options and ask the students to move to the corner[illegible]at they believe represents the event.

5. Once all students have chosen a corner, discuss the correct answer and explain why it is the best choice.

6. Optionally: You could play this game several different ways. Another option could be to give each student a whiteboard and marker and have them write their answer down. Then countdown 3-2-1 and have everyone show their answer. Another option if you have no whiteboards is to have students use their fingers to show their answer. A = 1 finger, B = 2 fingers, C = 3 fingers, and D = 4 fingers. Complete a countdown and have students show their answer using their fingers.

PREVIEW

© Super Simple Sheets

Name: _____ 116

Curriculum Connection
D2.1

Event 1 Analyze the event and then move to one of the corners of the room

There are 10 cubes in a bag. All are green.

is likelihood of pulling out a green cube?

PREVIEW

Event Options:

- A: Impossible
- B: Unlikely
- C: Equally Likely
- D: Certain

© Super Simple Sheets

Name: _____ 125

Curriculum Connection
D2.1

Event 10 Analyze the event and then move to one of the corners of the room

You will drink water sometime today.

What is the likelihood of this happening?

PREVIEW

Event Options:

- A: Impossible
- B: Unlikely
- C: Equally Likely
- D: Certain

© Super Simple Sheets

Name: _____ 126

Curriculum Connection
D2.2

Predicting Survey Results – Food - Class



When we do a survey, we can predict what the results will be based on who we ask. The people we survey are called the population. If you ask adults the same question that you ask kids, you will probably be able to predict different survey results. Try it below!

Predict

What do you predict will be the results of the survey

1) Write down what you think the results will be if you asked 10 students in your class the question: "What is your favourite food?"

Survey Question : What is your favourite food?

Categories			Steak	Fish	Sandwiches
Frequency					

2) Complete the survey by asking 10 classmates

Survey Question : What is your favourite food?

Categories	Pizza	Hot Dog	Steak	Fish	Sandwiches
Tally					
Frequency					

PREVIEW

Results

How were your predictions?

Were your predictions accurate or not? What surprised you?

© Super Simple Sheets

Name: _____ 129

Curriculum Connection
D2.2

Predicting Survey Results – Drink - Adults

Predict What do you predict will be the results of the survey

1) Write down what you think the results will be if you asked 10 different adults the survey question, "What is your favourite drink?"



Survey Question : What is your favourite drink?

Categories	Water	Juice	Tea	Pop	Coffee
Frequency					

2) Complete the survey by asking different adults.



Survey Question : What is your favourite drink?

Categories	Water	Juice	Tea	Pop	Coffee
Tally					
Frequency					

Results How was your prediction?

1) Were your predictions accurate or not? What surprised you?

2) Why do you think you got different results when you asked adults?

PREVIEW

Name: _____ 132

Curriculum Connection
D2.2

Predicting the Mean, Median, Mode

Data can be predicted based on what the data is about or who was surveyed. For example, we can predict that snowfall will be heavier in the winter months than the other seasons. We can also predict that younger kids will enjoy juice more than adults.

Predict What do you predict will be the results of the survey

1) The To[illegible]Raptors have scored the following points in the last 5 games.

105, 101, 105, 100, 104

The B[illegible] Celti[illegible]e[illegible]ther NBA team that won 5 more games than the Raptors last year. Pre[illegible]ra[illegible]based on what you know about the Raptors.

		Mode	Median
Raptors			
Celtics			

2) Usain Bolt ran 5 races in 2019. Hi[illegible]n time[illegible]st[illegible]d below in seconds.

9.8, 10, 9.6, 9.8[illegible]

Predict your averages if you raced the 100m 5[illegible]e

	Mean	Mode	[illegible]ian
Usain Bolt			
You			

3) The average temperature for the 4 seasons in Toronto are listed below. Find the yearly averages and write them in the table below.

0, 12, 25, 7

Predict the yearly averages in Jamaica

	Mean	Mode	Median
Toronto			
Jamaica			

PREVIEW

Name: _____ 133

Curriculum Connection
D2.2

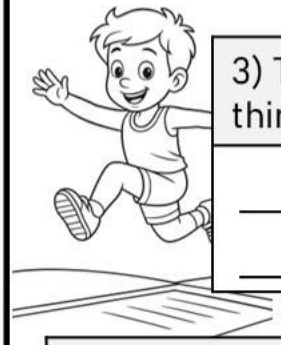
Predicting the Mean, Median, Mode

Predict What do you predict will be the results of the survey



1) The grade 4s were surveyed, asking how many minutes they read a night. The mean amount for grade 4s was 20 minutes. What do you think will be the mean for grade 5s if they were surveyed? Explain.

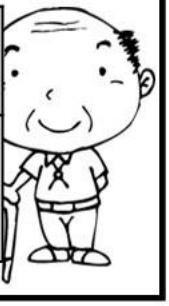
2) Adult[illegible]t a fa[illegible]aurant were surveyed as to what their favourite drink was. The mod[illegible] to [illegible] cola. What do you think would be the mode at a different fast fo[illegible]aura[illegible]dults were surveyed? Explain.



3) The median for long jump[illegible] in a gra[illegible] clas[illegible] 145 cm. What do you think the median for long jumps in[illegible]de 4 [illegible]d be? Explain.

4) The mean for time spent using social media for a grade 4 class w[illegible]minutes a day. What do you think the mean for a grade 8 class would be if they[illegible]re asked the same question? Explain.

5) The median number of steps a student in grade 4 takes is 10 242. What do you think would be the median number of steps for a retired senior? Explain.



PREVIEW

© Super Simple Sheets

Name: _____ 134

Curriculum Connection
D2.2

Predicting the Population



Predict Circle what population you think the data belongs to

1.

Mean	4	Basketball Score
Median	3	Hockey Score
M[illegible]e	5	Football Score

2.

[illegible]	75	Test Scores
Median	78	Hockey Score
M[illegible]	76	Daily Rainfall in mm

3.

Mean	[illegible]	Pencil Prices
Median	6	[illegible]irt Prices
Mode	6	[illegible]urge[illegible]ices

4.

Mean	14	Age[illegible]k Driv
Median	15	Ages of [illegible]ysitt
Mode	17	Ages of Teach[illegible]

5.

Mean	243	Country Population
Median	236	City Population
Mode	228	School Population

6.

Mean	2	Number of Pets
Median	1	Number of Books in a Library
Mode	3	Computers in a Computer Lab

PREVIEW

© Super Simple Sheets

Name: _____ 135

Curriculum Connection
D2.2

Predicting the Mean, Median, Mode

Ask the survey question to students in your class. If there are two grade 4 classes, ask your entire class. Later, you will ask the same survey question to the other grade 4 class. If your school has only one grade 4 class, ask half of your class the survey question and then ask the other half the same question to compare.

Collect

Collect data from your class

Survey Q	How many minutes do you play video games a day?
Data S	

PREVIEW

Interpret

Find t , med nd mode

Mean	
Median	
Mode	

Predict

Answer the questions below

1) What do you predict will be the mean, median, and mode of the o ass or other part of the class?

Mean	
Median	
Mode	

2) Why do you feel these are good predictions? What helped you decide?

_____

_____

_____

© Super Simple Sheets

Name: _____ 137

Unit Quiz – Probability

Part 1 Circle the likelihood of the event happening

a) You will drink something today

Impossible
Certain

b) You will fly home today

Impossible
Certain

c) [illegible] today

[illegible]
[illegible]
Unlikely

d) You will play basketball today

Even Chance
Likely
Unlikely

PREVIEW

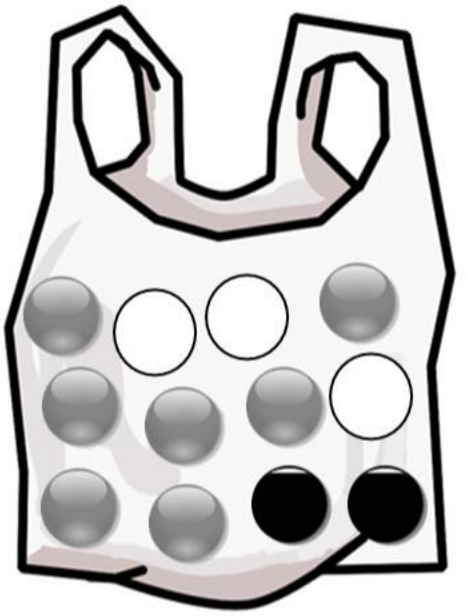
Part 2 Use the terms to des[illegible] the lik[illegible] of the events below

1. The Toronto Blue Jays will win the World S[illegible] ne[illegible]
2. You will have a lunch break today.
3. You will have a nap today.
4. You will find a diamond on the ground today.
5. You will read a book today.
6. It will rain or snow today.
7. You will roll an 8 when rolling a single six sided dice.

© Super Simple Sheets

Marbles

There are 12 marbles in a bag. What is the likelihood of you pulling out a white, grey, or black marble?



Frequency Table Fill in the frequency table below

Marble Colour	Frequency
White	

Part 1 Use these words to describe likelihood: Impossible, unlikely, equally likely, likely, certain

1. What is the likelihood of pulling out a marble?	
2. What is the likelihood of pulling out a grey marble?	
3. What is the likelihood of pulling out a white marble?	
4. What is the likelihood of pulling out a black, white, or grey marble?	
5. What is the likelihood of pulling out a black or white marble?	
6. What is the likelihood of pulling out a green marble?	

Part 2 Write your own events that would represent the probabilities below

1) Impossible	
2) Likely	
3) Unlikely	

PREVIEW