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

Google Slides Lessons Preview

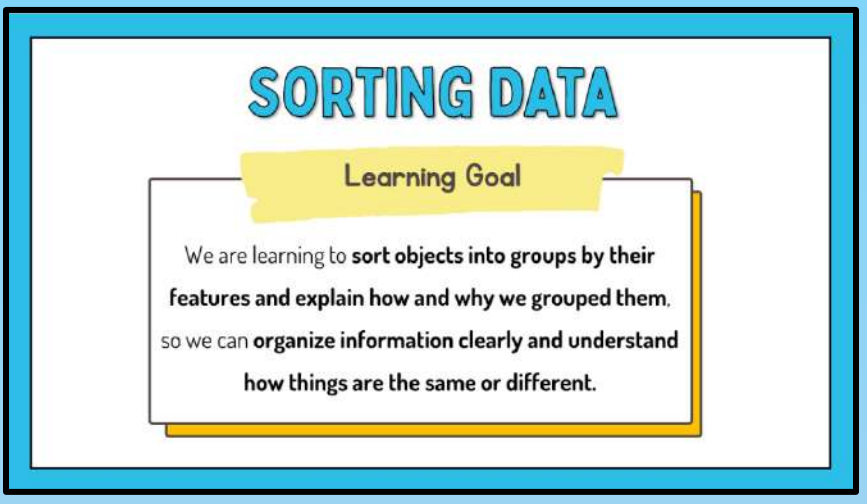
Ontario Math Curriculum

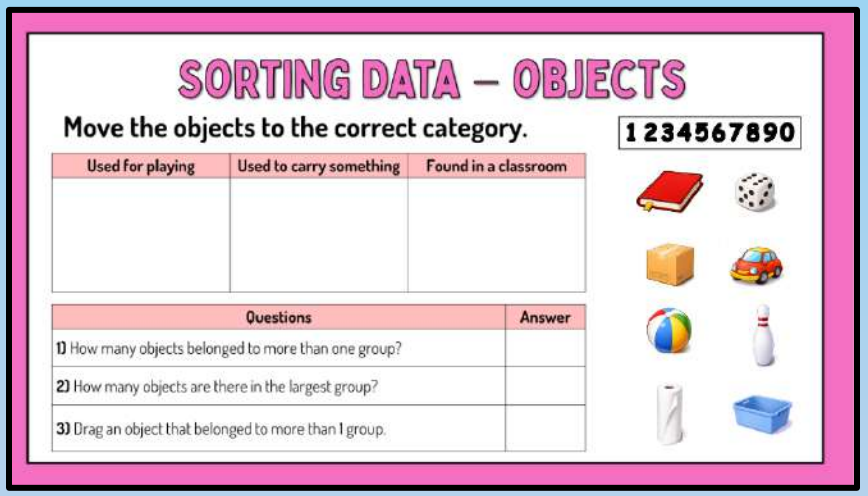
Data Literacy & Probability – Grade 2

3-Part Lesson Format

Part 1 – Minds On!

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



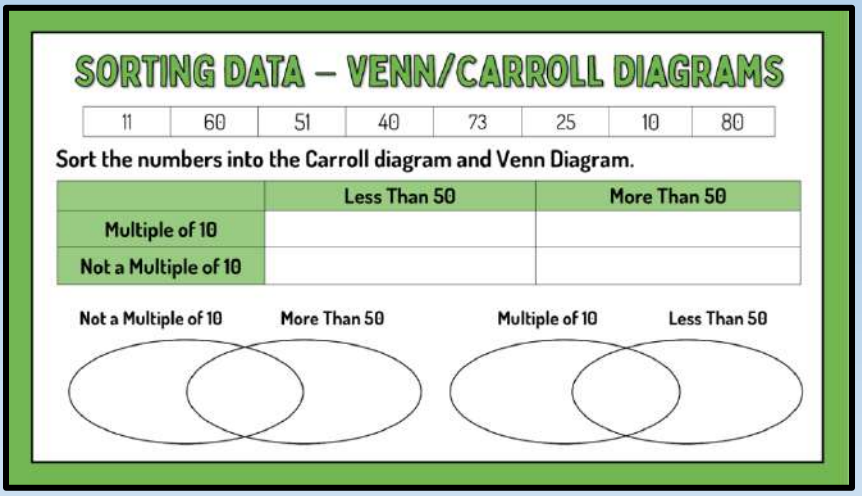


Part 2 – Action!

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

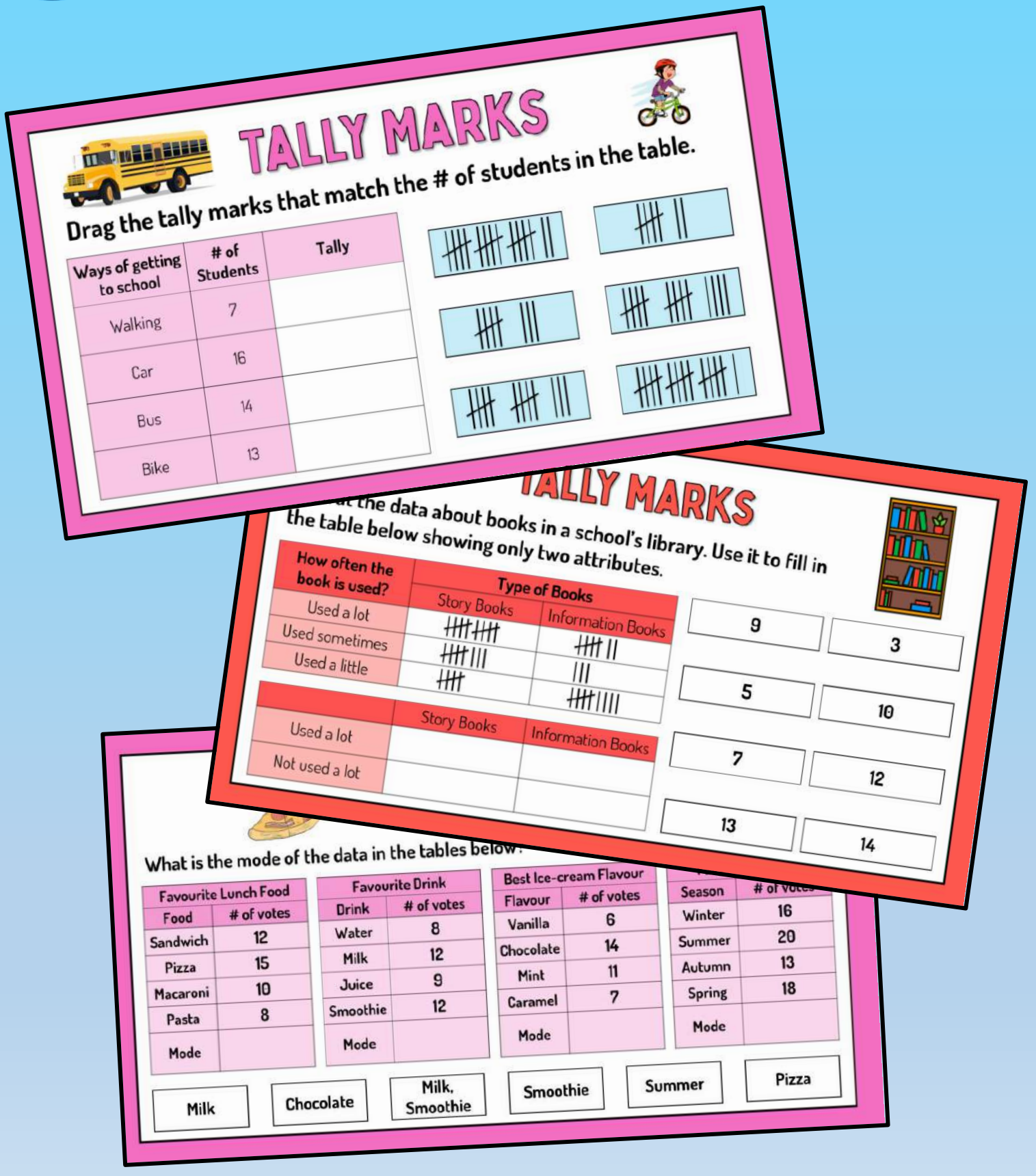
Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!



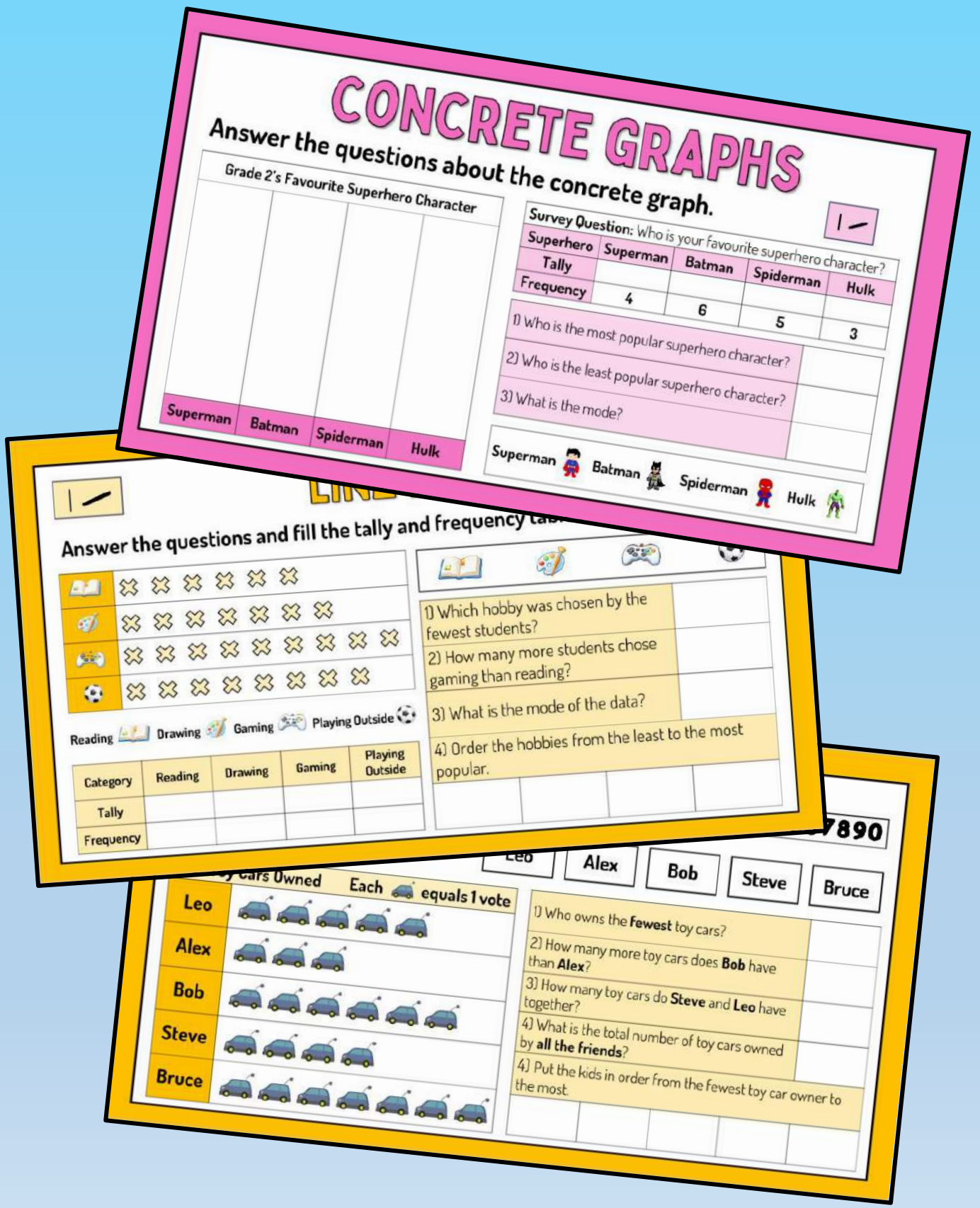
Ontario Math Curriculum

Data Literacy & Probability – Grade 2



Ontario Math Curriculum

Data Literacy & Probability – Grade 2



Workbook Preview

Grade 2
D1. – Data Literacy

	Curriculum Expectations	Pages That Cover the Expectations
D1.1	sort sets of data about people or things according to two attributes, using tables and logic diagrams, including Venn and Carroll diagrams	5 – 25, 30 – 38, 64 – 66
D1.2		45 – 2
D1.3	correspondence, in concrete graphs, pictographs, line plots, and bar graphs with proper sources, titles, and labels	44 – 48, 51, 54, 57 – 59, 61, 63
D1.4	identify the mode(s), if any, for various data sets presented in concrete graphs, pictographs, line plots, bar graphs, and tables, and explain what this measure indicates about the data	39 – 40, 42 – 43, 51, 54
D1.5	analyse different sets of data presented in various ways, including in logic diagrams, line plots, and bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	49 – 50, 52 – 53, 55 – 56

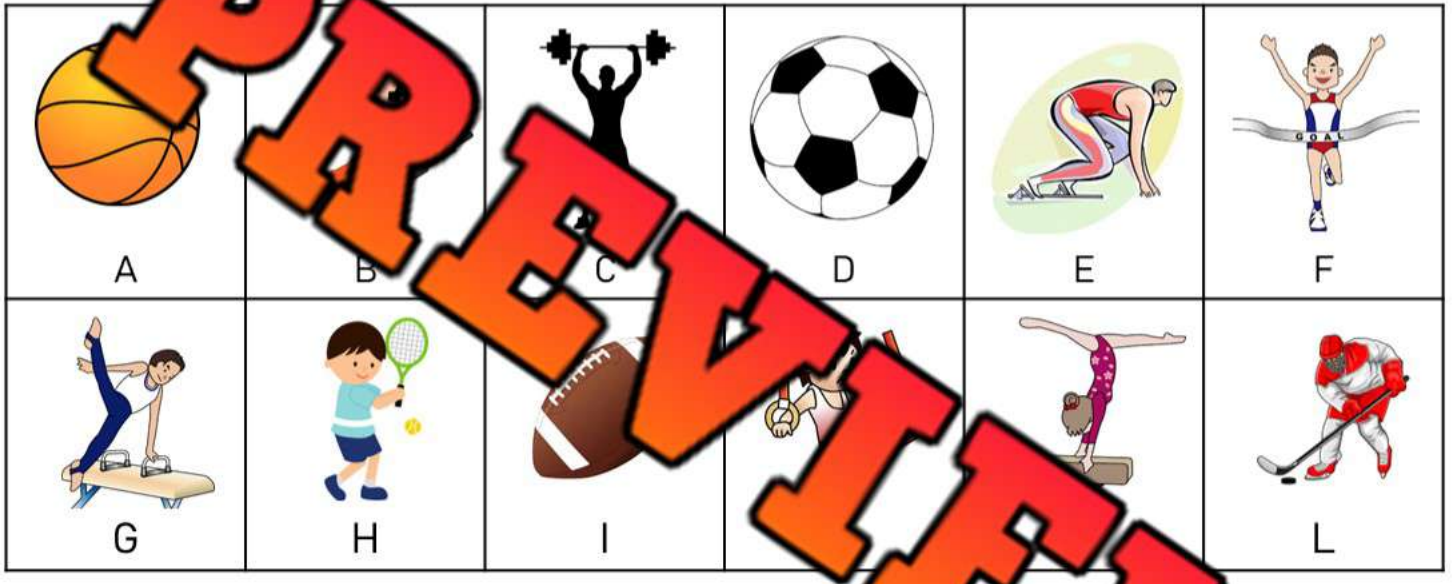
Name: _____ 7

Curriculum Connection
D1.1

Sorting Data

Part 1 Sort the sports by writing the letter in the correct category

Ball/Puck Sport	Gymnastics	Exercise	Running



Part 2 Read the list of data and match them with the correct ...

a) t-shirt, sweater, jeans, socks	_____ ...er wear
b) coat, gloves, boots, snow pants	_____ clothing
c) TV, phone, video games, computer	_____ tools
d) saw, hammer, screwdriver, wrench	_____ electronics
a) mom, dad, brother, sister	_____ vehicles
b) car, truck, motorcycle, van	_____ family
c) crackers, bread, cereal, chips	_____ desserts
d) brownie, cookie, cake, ice cream	_____ food

Name: _____ 8

Curriculum Connection
D1.1

Sorting Data – Carroll Diagram

Part 1 Sort the animals into the correct categories

						
Cow	[illegible]	Dog	Cat	Goldfish	Gorilla	Human

	4 legs	Has 0–2 legs
Can be a pet		
Not a pet		

Part 2 Give examples of animals that fit the following categories

Can you think of another animal that...	
1. Is a pet with 4 legs?	
2. Has 4 legs and is not a pet?	
3. Has 0–2 legs and is a pet?	
4. Has 0–2 legs and is not a pet?	

Name: _____ 9

Curriculum Connection
D1.1

Activity Title: Fun with Sorting: Animal Attributes

Objective

What are we learning about?

Students will learn to sort data by using two different attributes, such as colour and size, to understand the concept of categorization and data organization.

Materials

What you will need for the activity.

- Ani[illegible]c[illegible] (can be printed from the internet c[illegible]n by the [illegible]) - provided
- Colo[illegible]ed mar[illegible]
- Paper
- Rulers

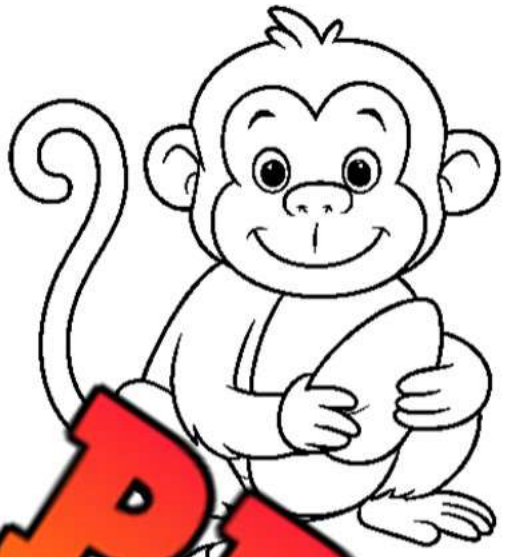
Instructions

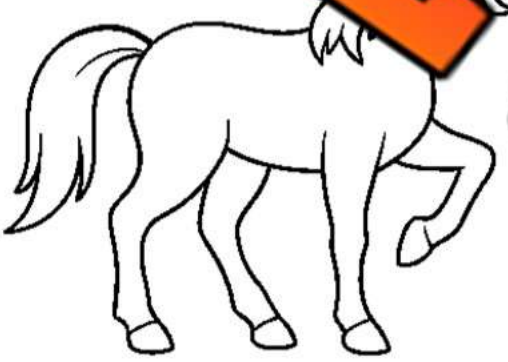
How yo[illegible]mple[illegible]tivity

1. Begin by discussing with students [illegible]tribute[illegible]nd give examples, such as colour, size, shape, and type.
2. Hand out the animal picture cards to the stu[illegible] and [illegible]h[illegible]olour the animals using the markers. Ensure that there are multiple[illegible]nd a m[illegible]izes (e.g., small, medium, large) among the animals.
3. Ask the students to cut out the animal pictures if they aren't al[illegible]
4. Divide the class into small groups and give each group a piece of pa[illegible]d a ruler.
5. Have the students draw a large grid on their paper with two columns and two rows, creating four boxes in total.
6. Label the columns with one attribute (e.g., "Small" and "Large") and the rows with another attribute (e.g., "Red" and "Blue").
7. Instruct the groups to sort their animal cards into the appropriate boxes based on the two attributes.
8. Once the sorting is complete, each group should discuss how they decided where each animal card should go and ensure everyone agrees.

Name: _____ 10

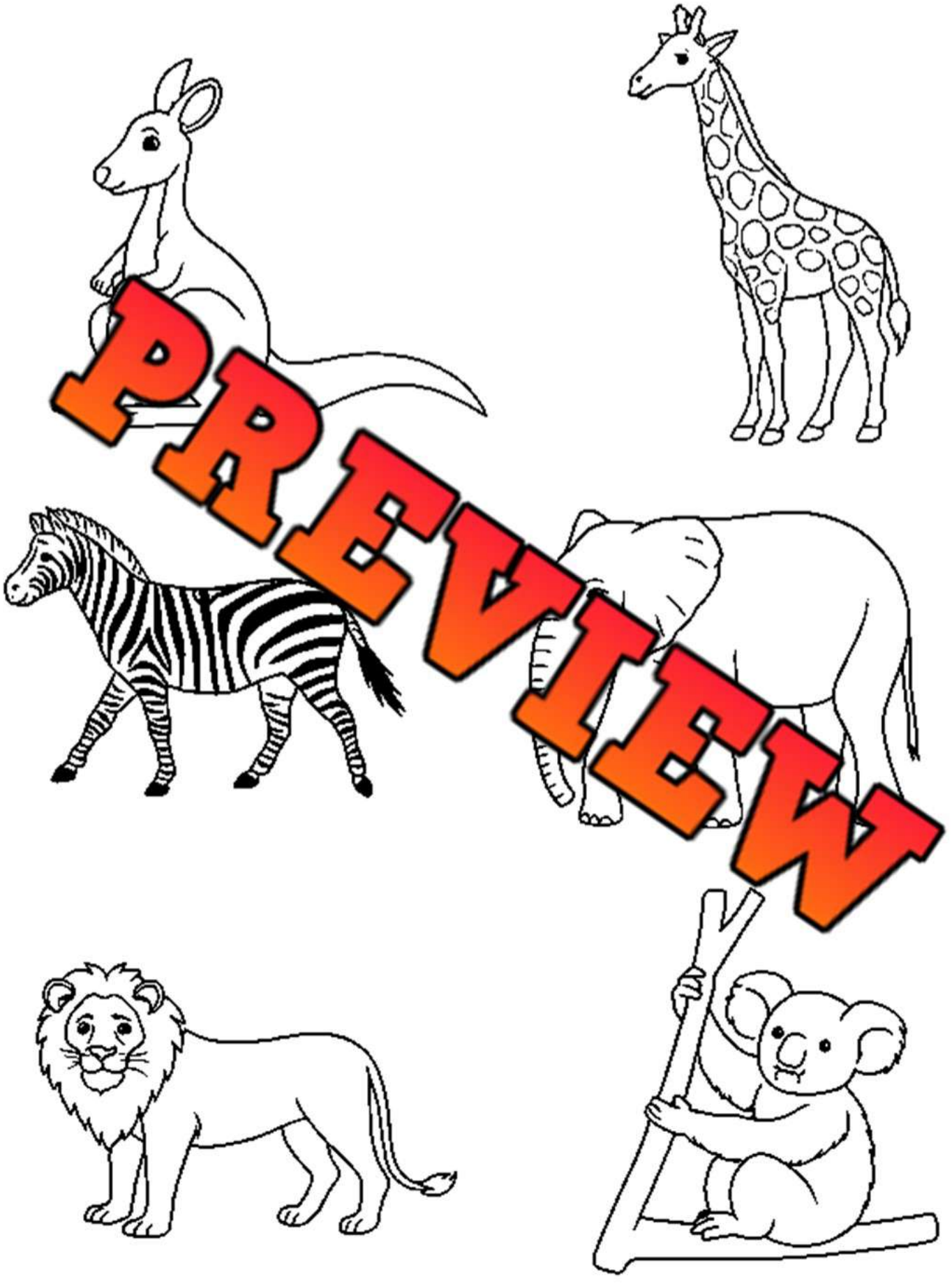
Curriculum Connection
D1.1





Name: _____ 11

Curriculum Connection
D1.1



Name: _____ 12

Curriculum Connection
D1.1

Name: _____ 13

Curriculum Connection
D1.1

Sorting Data – Carroll Diagram

Part 1 Sort the numbers into the correct categories

	Number Greater Than 100	Number Less Than 100
Odd Number		
Even Number		

Part 2 Give examples of numbers that fit the following ca

Can you think of another number that...	
1. Is odd and greater than 100?	
2. Is odd and less than 100?	
3. Is even and greater than 100?	
4. Is even and less than 100?	
5. Is even and between 50 and 100?	
6. Is odd and between 300 and 1000?	

Curriculum Connection
D1.1

Exit Cards

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

Name: _____

Carrol Diagram: Sort the animals into the correct categories.

Elephant	Dog	Cat	Lion
Albatross	Eagle	Snake	Shark

	Bigger Than You	Smaller Than You
Can Fly		
Can't Fly		

Name: _____

Carrol Diagram: Sort the animals into the correct categories.

Elephant	Dog	Cat	Lion
Albatross	Eagle	Snake	Shark

	Bigger Than You	Smaller Than You
Can Fly		
Can't Fly		

Name: _____

Carrol Diagram: Sort the animals into the correct categories.

Elephant	Dog	Cat	Lion
Albatross	Eagle	Snake	Shark

	Bigger Than You	Smaller Than You
Can Fly		
Can't Fly		

Name: _____

Carrol Diagram: Sort the animals into the correct categories.

Elephant	Dog	Cat	Lion
Albatross	Eagle	Snake	Shark

	Bigger Than You	Smaller Than You
Can Fly		
Can't Fly		

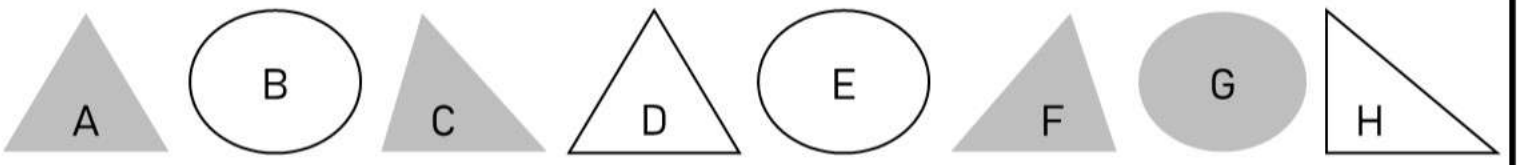
Name: _____ 15

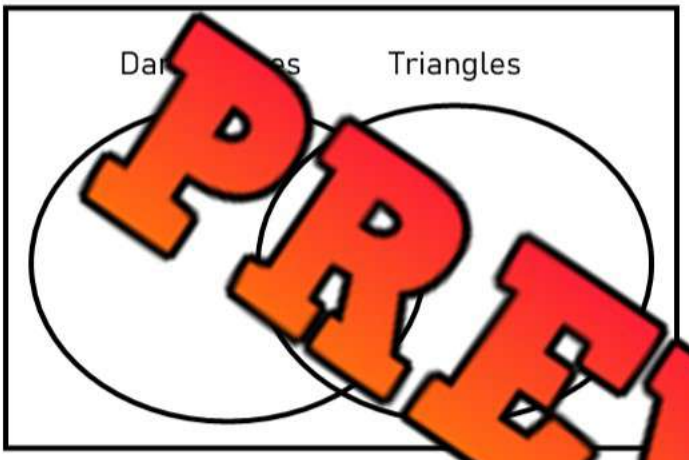
Curriculum Connection
D1.1

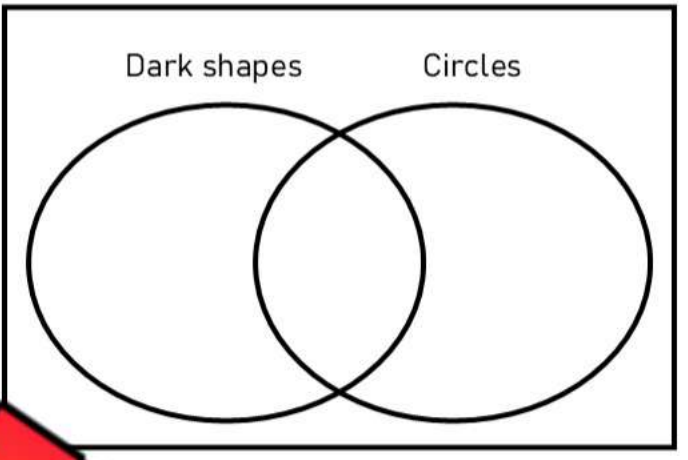
Sorting Data – Venn Diagram

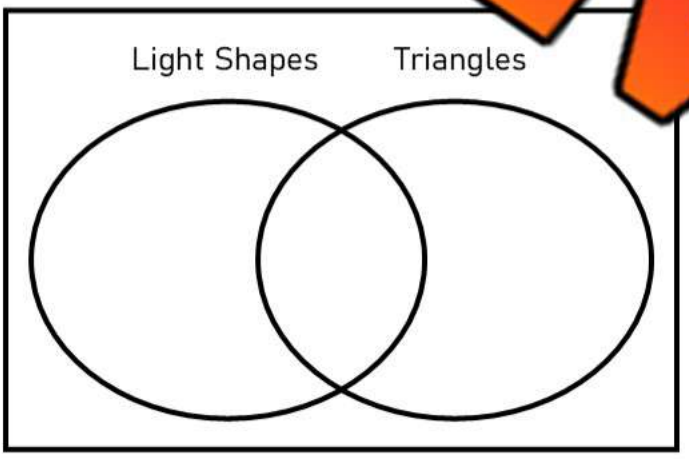
Part 1

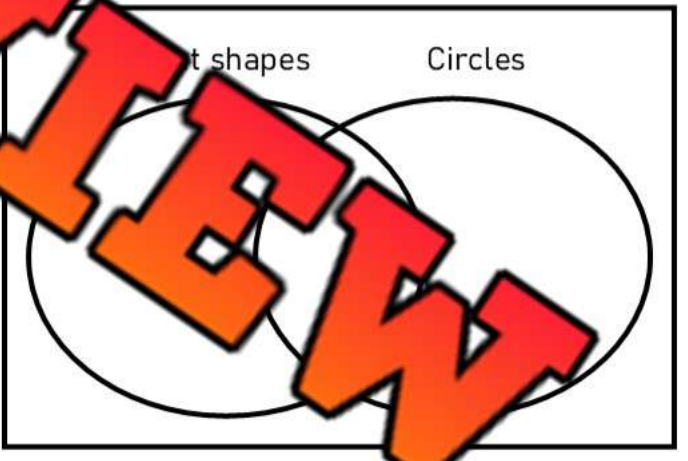
Sort the numbers into the correct categories









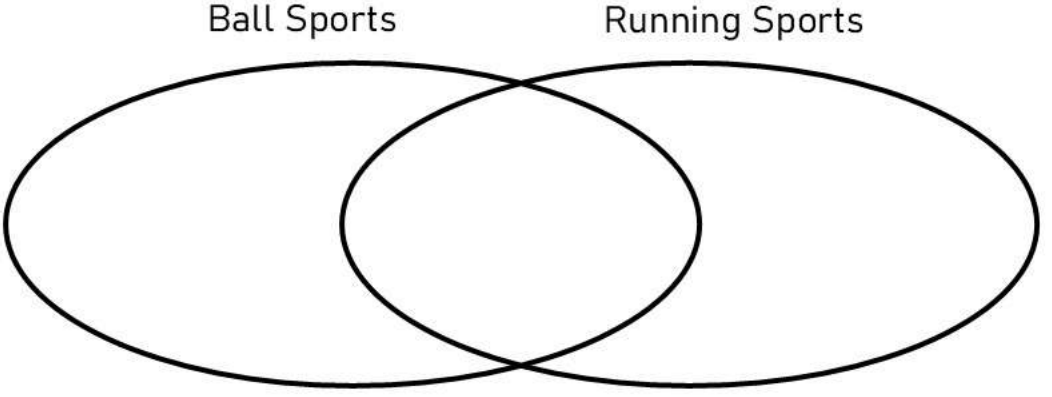


Part 2

Sort the sports into the correct categories

Sports

- Basketball
- Soccer
- 100 metre run
- Marathon run
- Tennis
- Golf
- Bowling



Name: _____ 17

Curriculum Connection
D1.1

Sorting Data – Carroll Diagram

22	36	13	75	56
25	41	27	47	1

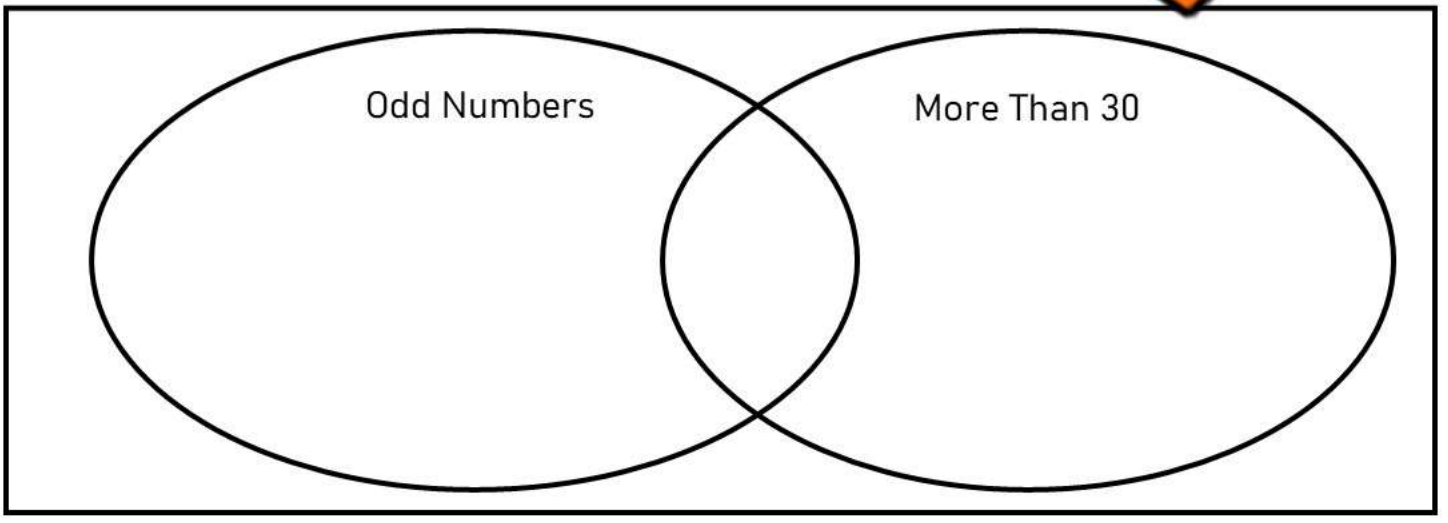
Part 1 Sort the numbers into the correct categories in the Carroll diagram

	Less Than 30	More Than 30
Even N		

Part 2 Fill in th ay e

	Less Than 30	Mor 3	Total
Odd Numbers			
Even Numbers			
Total			

Part 3 Sort the numbers using the Venn Diagram



Name: _____ 18

Curriculum Connection
D1.1

Sorting Numbers – Venn, Two-Way, Carroll

43	77	132	103	22
38	135	126	98	163

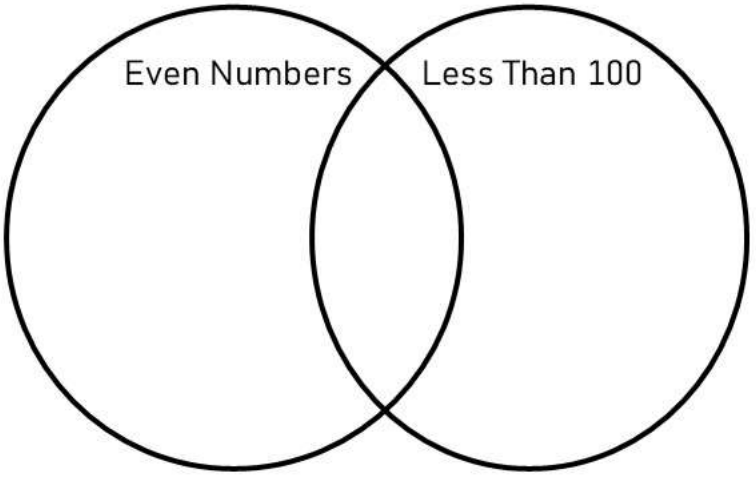
Part 1 Sort the numbers into the correct categories in the Carroll diagram

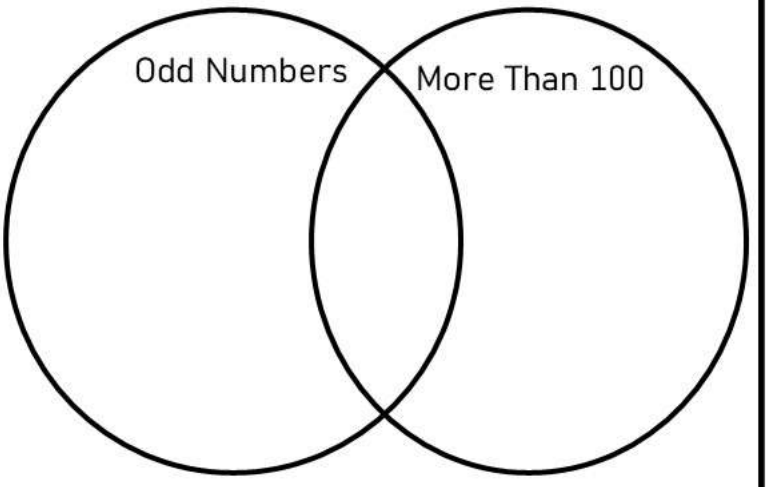
	Less Than 100	More Than 100
Odd Numb		
Even Nu		

Part 2 Fill in the two-way table

	Less Than 100	More Than 100	Total
Odd Numbers			
Even Numbers			
Total			

Part 3 Sort the numbers using the Venn Diagram

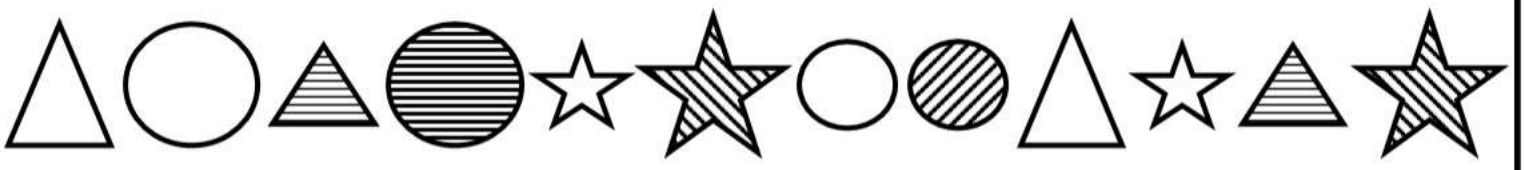




Name: _____ 19

Curriculum Connection
D1.1

Sorting Shapes – Venn, Two-Way, Carroll



A B C D E F G H I J K L

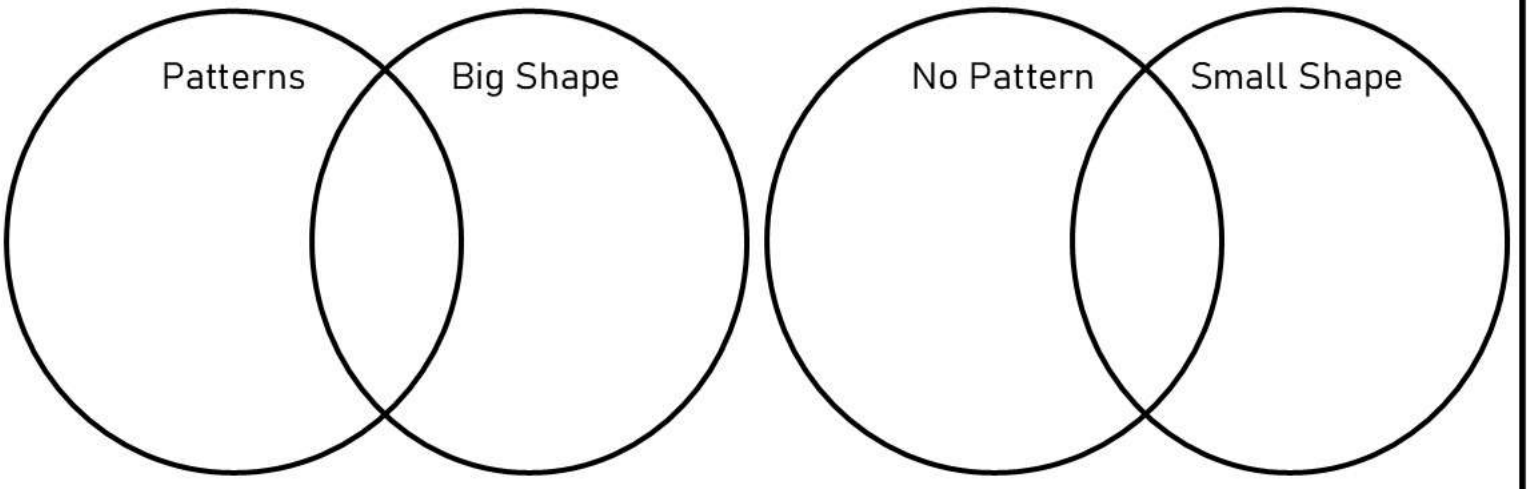
Part 1 Sort the shapes into the correct categories in the Carroll diagram

	Pattern	No Pattern
Big Shape		A,
Small Shape		

Part 2 Fill in the two-way table

	Pattern	No Pattern	Total
Big Shape	3		
Small Shape			
Total			

Part 3 Sort the shapes using the Venn Diagram



Name: _____ 20

Curriculum Connection
D1.1

Sorting Food – Venn, Two-Way, Carroll

A B C D E F G H I J K L

Part 1

Sort the food/drinks into the correct categories in the Carroll diagram

	Food	Drink
Hot		
Cold		

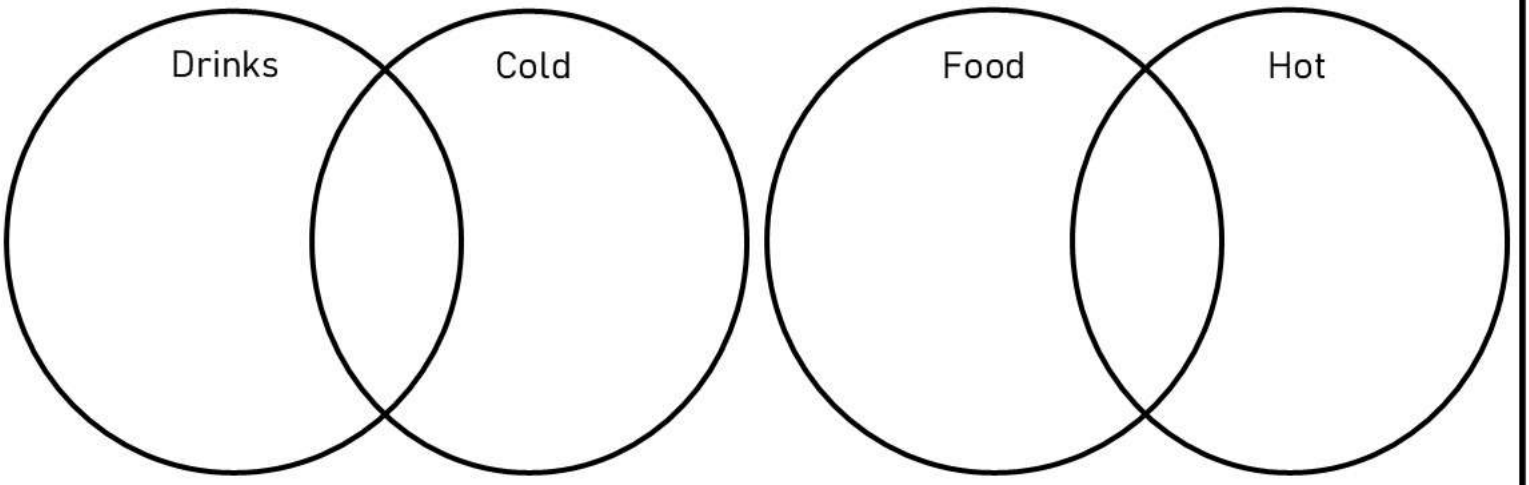
Part 2

Fill in the two-way table

	Food	Drink	Total
Hot	3		
Cold			
Total			

Part 3

Sort the food and drinks using the Venn Diagrams



Name: _____ 21

Curriculum Connection
D1.1

Classmate Survey – What Do You Like?

Objective What are we learning about?

Students will collect and organize data by surveying classmates about two preferences, then sort and display the information using a two-way tally table, Venn diagram, and Carroll diagram.

Materials What you will need for the activity.

- S[illegible]board
- P[illegible]ates for the three diagrams

Instructions [illegible]

1. Begin by brainstorm[illegible] simple y[illegible]rvey questions with the class, such as "Do you like apples?" an[illegible] lik[illegible]g.
2. Ask each student to make a predict[illegible] wh[illegible]mbination will be most common in the class, such as "I thi[illegible]st peop[illegible]ike both."
3. Explain that students will go around the roo[illegible] ask e[illegible]ssmate both questions and record their answers.
4. Provide students with a simple recording chart wi[illegible]e columns[illegible]ed "Classmate," "Likes Apples," and "Likes Dogs."
5. Once all responses are collected, students will create a t[illegible]-wa[illegible]le rows labeled "Likes Apples" and "Doesn't Like Apples," and col[illegible]ikes Dogs" and "Doesn't Like Dogs."
6. Students will then complete a Venn diagram by drawing two overlapping circles, labeling one "Likes Apples" and the other "Likes Dogs," and placing each classmate's name in the appropriate section.
7. Next, students will complete a Carroll diagram by creating four boxes, labeling the top "Likes Dogs" and "Doesn't Like Dogs," and the sides "Likes Apples" and "Doesn't Like Apples," then placing each classmate's name in the correct box.
8. After completing all three diagrams, students will write two or three statements about what they noticed in their data, such as "More students liked dogs than apples" or "Only one student didn't like either."
9. As an optional extension, allow students to choose their own pair of questions to survey the class again and repeat the process with new data.

Name: _____ 22

Curriculum Connection
D1.1

Survey Write the name of who you survey and place a check or an x with their response

Student Name	Likes Apples	Likes Dogs

Name: _____ 24

Curriculum Connection
D1.1

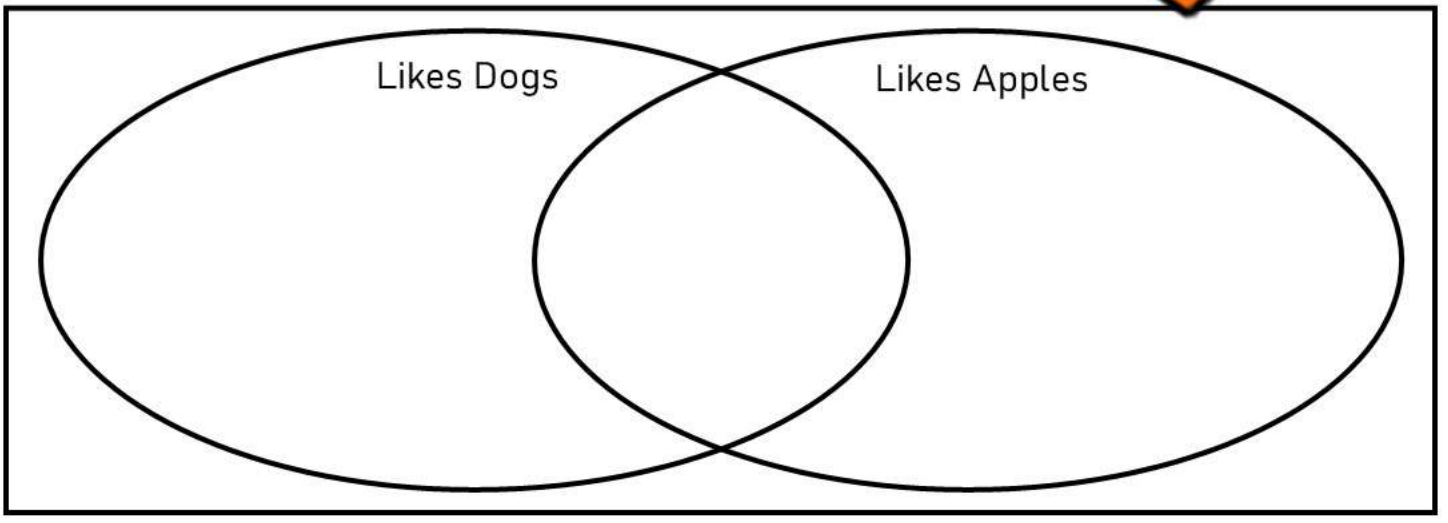
Part 1 Sort the data into the correct categories in the Carroll diagram

	Likes Dogs	Doesn't Like Dogs
Likes Apples		
Doesn't Like Apples		

Part 2 Fill in the two-way table below

	Likes Dogs	Doesn't Like Dogs	Total
Likes Apples			
Doesn't Like Apples			
Total			

Part 3 Sort the data using the Venn Diagram



Name: _____ 25

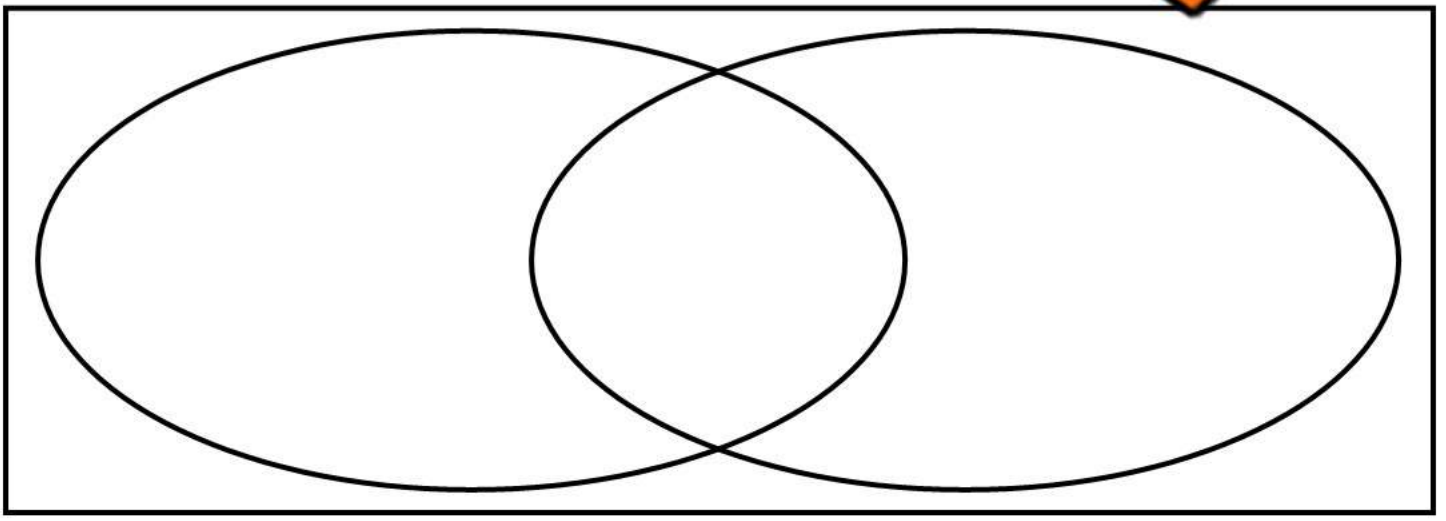
Curriculum Connection
D1.1

Part 1 **Optional** if creating your own survey questions. Sort the data into the correct categories in the Carroll diagram

Part 2 **Optional** if creating your own survey questions. Fill in the two-way table below

			Total
Total			

Part 3 **Optional** if creating your own survey questions. Sort the data with the Venn diagram



Name: _____ 26

Curriculum Connection
D1.2

Tally Marks

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

Part 1

nt the tally marks

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Part 2

Draw tally marks that match the er

3 =	7 =	
12 =	15 =	18 =
26 =	31 =	

Part 3

Which is greater? Use the < > or =

8 _____	13 _____	14 ____

Name: _____ 27

Curriculum Connection
D1.2

Tally Marks and Frequency Tables

Part 1 Fill in the table by writing in the frequency of the tally marks

1. The students in a class were asked what their favourite sport is. The results are listed below. Fill in the frequency of the tally marks in each category below.

Categ	Football	Hockey	Basketball	Soccer
Ta	𝍸 |	𝍸 𝍸 |	𝍸	𝍸 ||
Frequ cy				

a) How many peo ere class? _____

b) Which sport is the mo r in _____

c) Which sport was the least popula lass? _____

d) How many more people liked hockey than b ball? _____

Part 2 Fill in the table by drawing the tally m ed on equency

2. Henry asked his friends what food they liked the best. He rgo s, but he wrote down the frequency. Help him fill in the table by dra rks.

Category	Pizza	Sandwich	Hot Dogs	French Fries
Tally				
Frequency	13	5	12	9

a) How many friends participated in the survey? _____

b) Which food is the most popular? _____

c) How many more friends liked French fries than sandwiches? _____

Curriculum Connection
D1.2

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 Fruit		
Fruit	Tallies	Frequency
Apple		
Banana		
Orange		7
Grapes	𝍸 𝍸 ||	
Pears		11

Name: _____

Fill in the tally table below

Favourite Fruit		
Fruit	Tallies	Frequency
Apple	𝍸 |||	
Banana		13
Orange		7
Grapes	𝍸 𝍸 ||	
Pears		11

Name: _____

Fill in the tally table below

Favourite Fruit		
Fruit	Tallies	Frequency
Apple	𝍸 |||	
Banana		13
Orange		7
Grapes	𝍸 𝍸 ||	
Pears		11

Name: _____

Fill in the table below

Favourite Fruit		
Fruit	Tallies	Frequency
Apple	𝍸 |||	
Banana		13
Orange		7
Grapes	𝍸 𝍸 ||	
Pears		11

Name: _____ 30

Curriculum Connection
D1.1

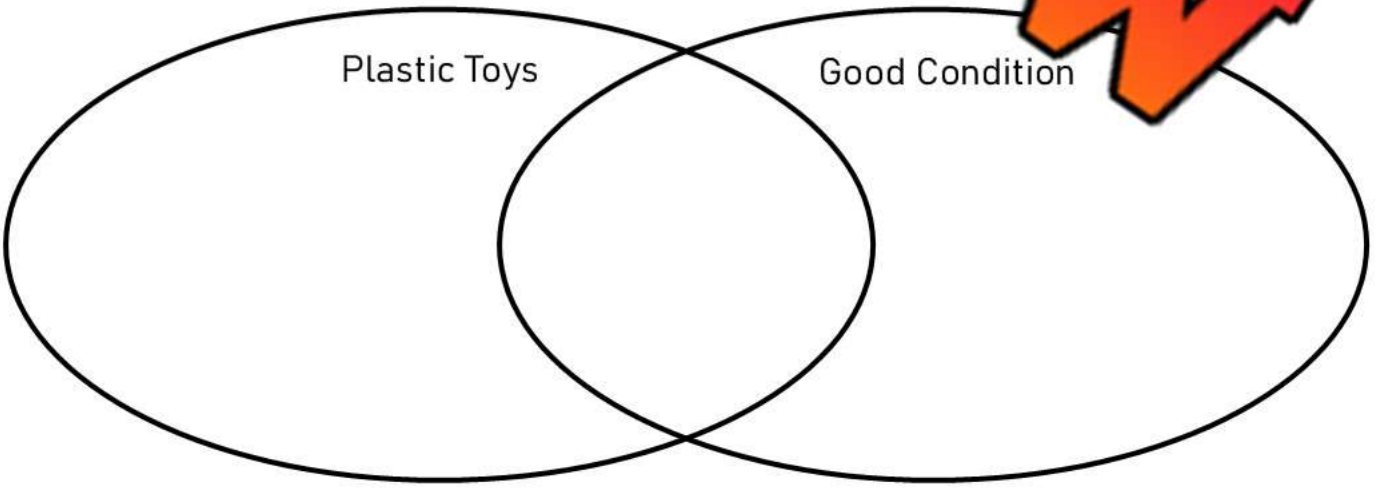
Displaying 2-Attributes From Larger Data Set

Condition	Type of Toy	
	Stuffed Animals	Plastic Toys
Excellent	𝍸 I	𝍸 I
Good	III	𝍸 𝍸 II
[illegible]	𝍸 III	𝍸 IIII

Part 1 [illegible] that is setup to display just two attributes from the data

	Pla[illegible]	Not Plastic Toys (i.e., stuffed animals)
Good Condition		
Not Good (i.e., excellent, fair)		

Part 2 Fill in the Venn Diagram that is setup to displa[illegible] attri[illegible]om the data



☐ # of toys that are not plastic and are not good condition.

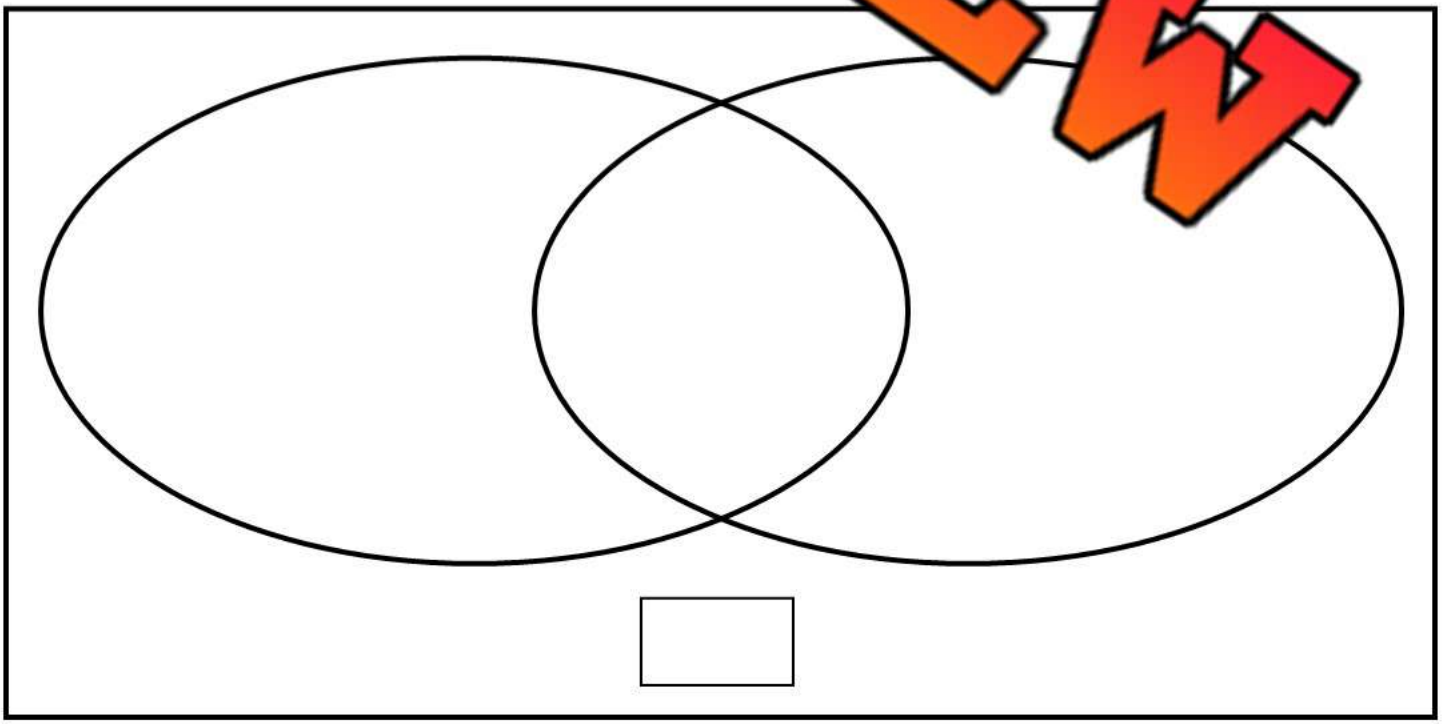
Name: _____ 31

Curriculum Connection
D1.1

Condition	Type of Toy	
	Stuffed Animals	Plastic Toys
Excellent	𝍸 I	𝍸 I
Good	III	𝍸 𝍸 II
Fair	𝍸 III	𝍸 IIII

Part 3 Choose 2 attributes from the data and create your own Carroll Diagram.

Part 4 Choose 2 attributes from the data and create your own Venn Diagram.



Name: _____ 32

Curriculum Connection
D1.1

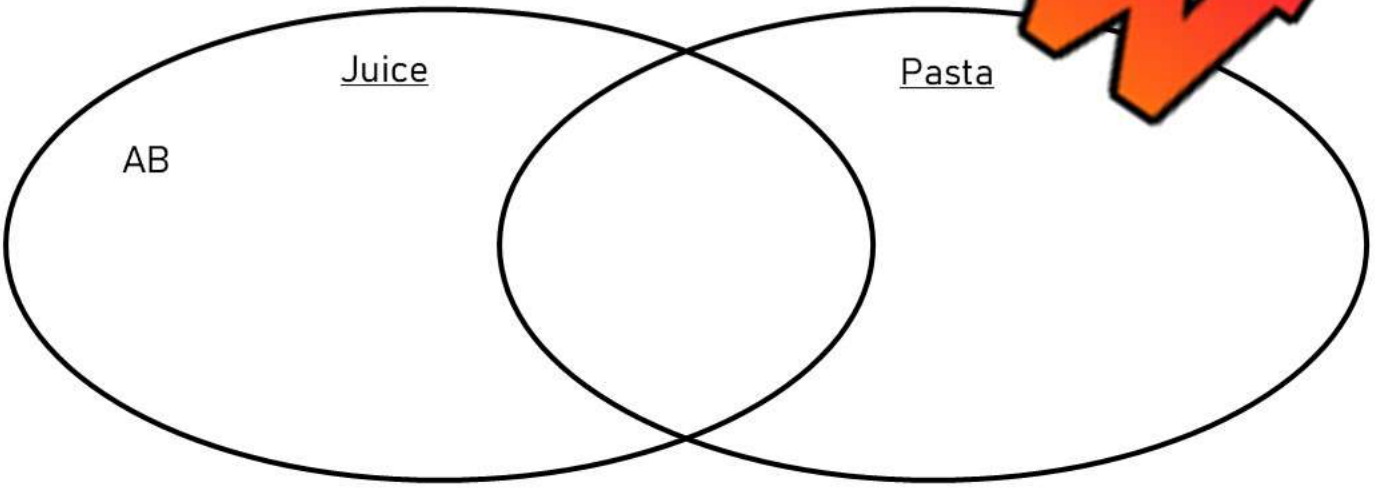
Displaying 2-Attributes From Larger Data Set

Lunch Type	Juice	Milk	Water
Sandwich	AB, CL, EM	TG, RS, CF	JD
Pasta	NT, BV	ZL, SS	CX, HP, DF
Leftovers	LJ, OA, PD	MK, RE, PT	TY, SF

Part 1 Complete the Carroll Diagram using the initials from the 2-way table above

	Juice	Not Juice (Milk, Water)
Pasta	N	
Not Pasta (Sandwich, Leftovers)		

Part 2 Fill in the Venn Diagram using the initials from the 2-way table above



Not juice and not pasta: TG, _____

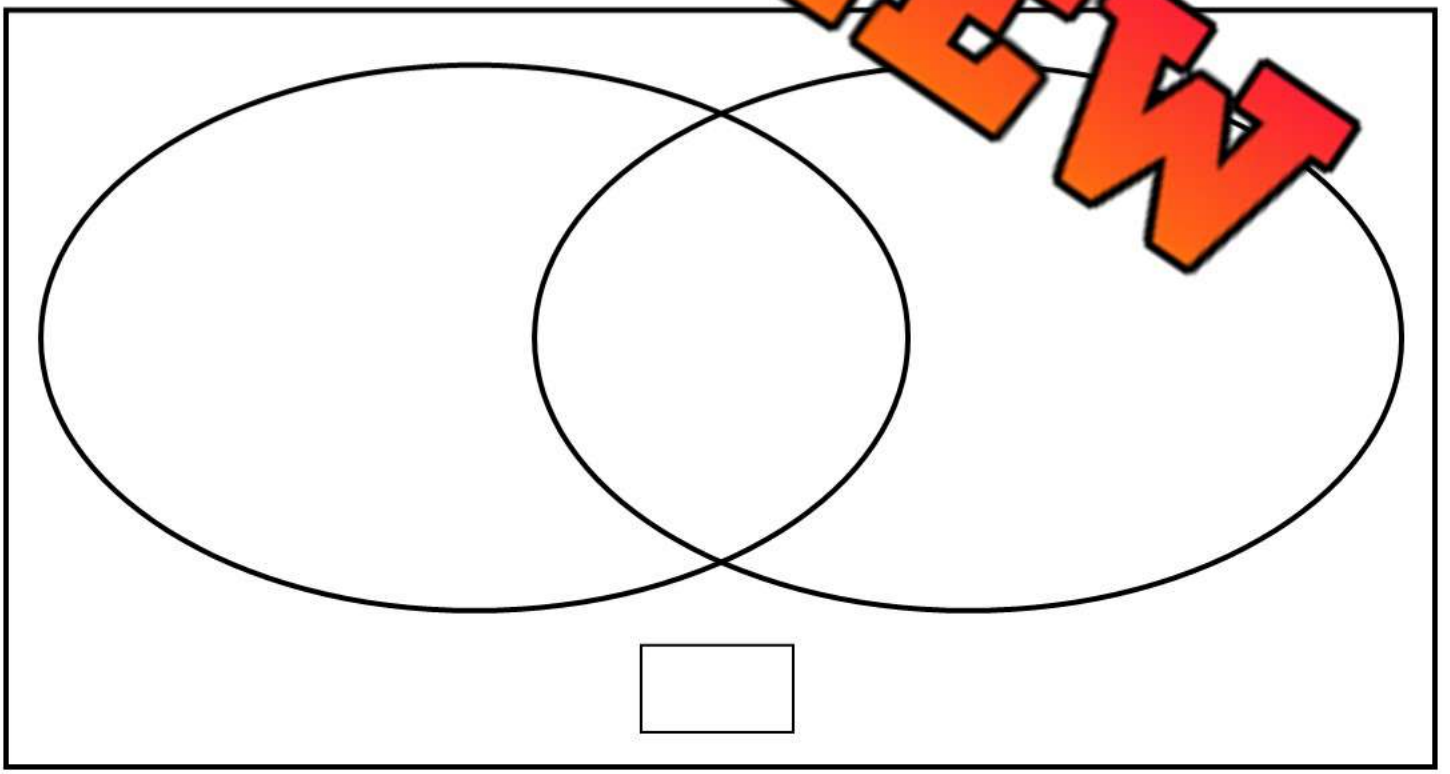
Name: _____ 33

Curriculum Connection
D1.1

Lunch Type	Juice	Milk	Water
Sandwich	AB, CL, EM	TG, RS, CF	JD
Pasta	NT, BV	ZL, SS	CX, HP, DF
Leftovers	LJ, OA, PD	MK, RE, PT	TY, SF

Part 3 Choose 2 attributes from the data and create your own Carroll Diagram.

Part 4 Choose 2 attributes from the dat reate Venn Diagram.



Name: _____ 34

Curriculum Connection
D1.1

Observing the Weather – Wind and Sun

Objective What are we learning about?

Students will collect weather data using two attributes—sunshine and windiness—then organize and display the data in a two-way tally table to help answer a simple weather-related question.

Materials What you will need for the activity.

- W[illegible]eet (or blank paper)
- Op[illegible]: outd[illegible]meter or anemometer

Instructions [illegible]you w[illegible]te the activity

1. Begin by asking stude[illegible]tion[illegible]vestigate through data, such as "Is it windier when it's sunny?"
2. Explain that the class will observe[illegible]ather e[illegible]y for a set period (e.g., two weeks or one month) at the same ti[illegible]each da
3. As a class, decide on two weather attribute[illegible]ack. F[illegible]ity, use "Sunny or Not Sunny" and "Windy or Not Windy."
4. Discuss how students can tell if it is sunny (e.g., sh[illegible]n visi[illegible] cloud cover) and windy (e.g., leaves moving, flags flapping, hair blo
5. Assign one or two students each day to be the class weather ob[illegible] go outside (or look out the window) at the designated time and rec[illegible]d w[illegible]t is sunny and whether it is windy.
6. Have students record each day's observation on a simple tracking sheet or classroom calendar using tally marks for each combination.
7. After collecting enough data, guide the class in reviewing the results and organizing the information into a two-way tally table.
8. Draw the table with one axis showing "Sunny / Not Sunny" and the other axis showing "Windy / Not Windy." Help students transfer their data into the correct boxes using tallies.
9. Once the chart is filled, ask students what they notice. Are there more windy days when it's sunny or not sunny? Did the weather surprise them?
10. As a final step, have students complete the question page.

Name: _____ 35

Curriculum Connection
D1.1

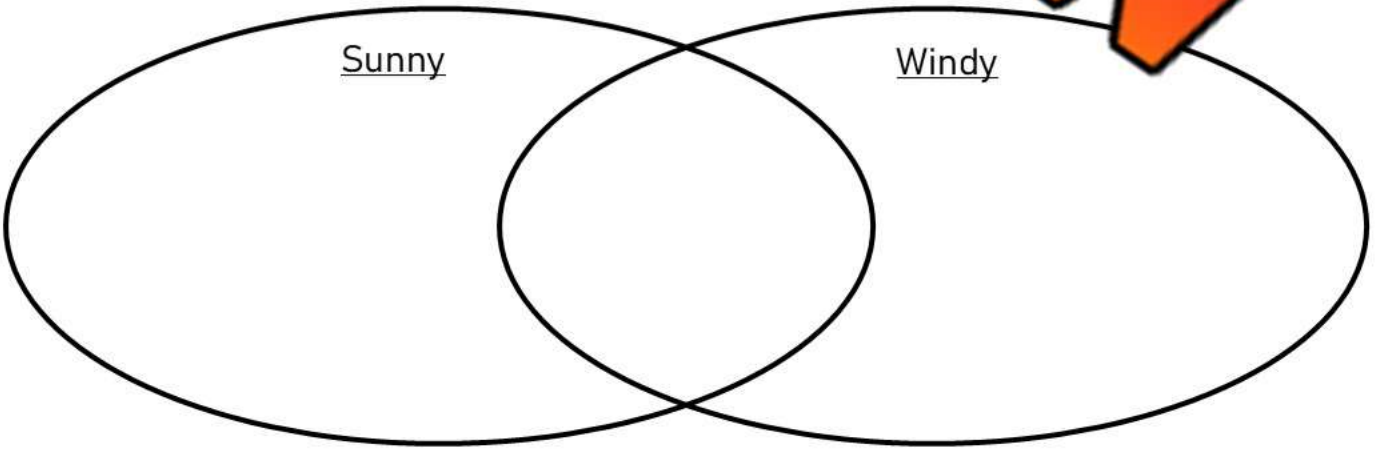
Observations Use tally marks to record your data in the two-way tally chart

	Sunny	Not Sunny
Windy		
Not Windy		

Carro gram te a Carroll Diagram representing the data

		Not Sunny
Windy		
Not Windy		

Venn Diagram Create a Venn Diagram represen e



# of days not sunny and not windy: _____

Name: _____ 36

Curriculum Connection
D1.1

Questions	Answer the questions below

1) How many days were both sunny and windy?

2) How many days were not sunny but still windy?

3) Were t re sunny or not sunny days in total?

4) Did we hav y d r not windy days?

5) On how many days was nny indy?

6) What was the most common type of weath obse

7) Were there any days that were both sunny and not wi

8) Is it windier when it is sunny or when it is not sunny? Describe the data.

9) How many total days did we collect data for?

Name: _____ 37

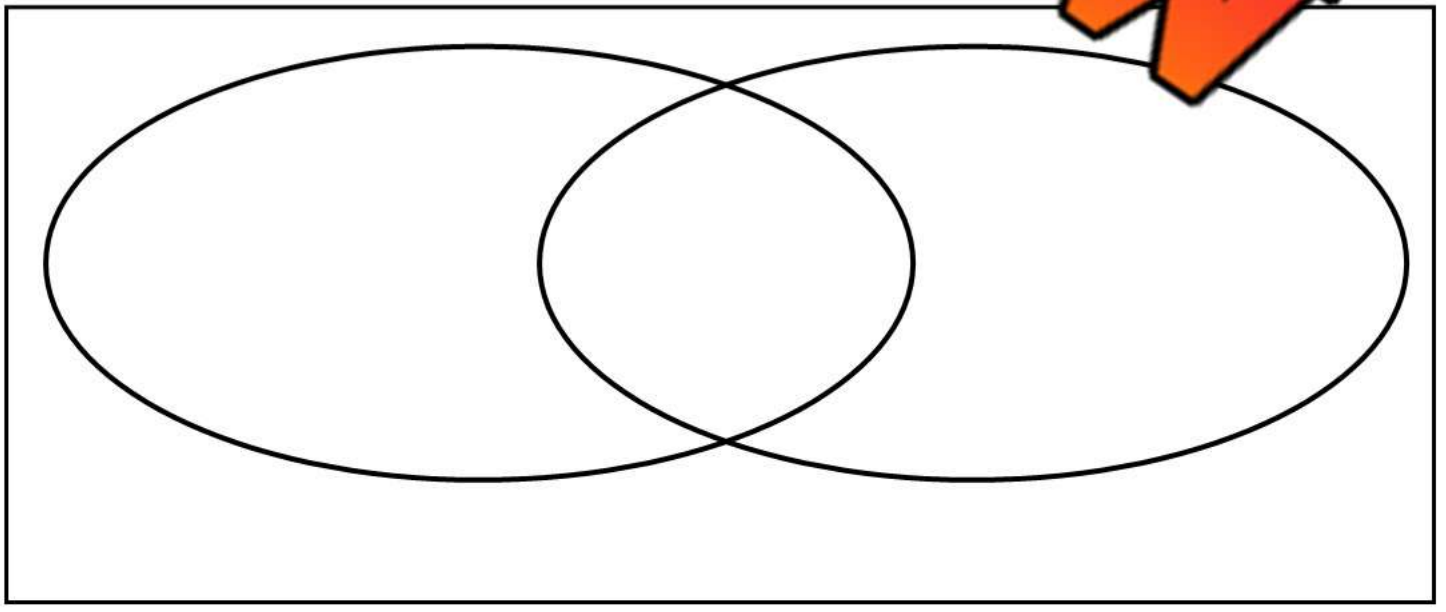
Curriculum Connection
D1.1

Instructions	What question will you be collecting data to answer? Write it down and organize a two-way table.

Question	

Carroll Diagram — Create a Carroll Diagram using the blank space below

Venn Diagram — Create a Venn Diagram using the blank space below



Name: _____ 38

Curriculum Connection
D1.1

Questions	Answer the questions below

1) What did you learn about the data you collected?

2) W[illegible] your question? Explain the answer.

3) Why is it helpful to collect data like this t[illegible]er qu[illegible] Why is it better than just guessing?

4) What other questions could you collect data to answer? Write 2.

Name: _____ 40

Curriculum Connection
D1.4

Mode

Part 1 What is the mode in the data sets below?

Hockey Goals
6 3 2 2 7
Mode(s): _____

Basketball Points
13 22 20 15 15
Mode(s): _____

Minu… …Da…
12 18 4… 1… 1…
Mode(s): _____

Test Scores
95 72 68 78 75
…de(s): _____

Part 2 Write data sets that have t… …ode…

_____, _____, _____, _____, _____, _____, _____

Mode: 15

_____, _____, _____, _____, _____, _____, _____

Mode: 24

_____, _____, _____, _____, _____, _____, _____

Mode: 39 and 52

Name: _____ 42

Curriculum Connection
D1.4

Mode

The **mode** is the option that has the most votes. It shows what the most people chose. Even though we sometimes say mode is the number that appears the most, in these tables we are looking at which category has the highest number. That's why the mode is the most popular choice!

Instructions What is the mode in the tables below?

Ar	# of Votes
[illegible]	15
Cat	13
Horse	8
Mode	

Recess Activity	# of Votes
Tag	9
Soccer	14
Swinging	14
Building in Sandbox	6
[illegible] Reading	3
[illegible]de	

Fruit	# of Votes
Apple	9
Banana	11
Watermelon	15
Orange	10
Grapes	6
Mode	

[illegible]opp[illegible]	# of Votes
Sp[illegible]	17
Chocolate [illegible]s	[illegible]
Gummy Bears	
Mode	

Pet	# of Votes
Dog	12
Cat	7
Hamster	5
Fish	8
Mode	

Subject	# of Votes
Math	10
Art	16
Gym	14
Science	7
Mode	

Name: _____ 43

Curriculum Connection
D1.4

Mode

Instructions What is the mode in the 2-way tables below?

	Paperback	Hardcover
Fiction	6	5
N[illegible]-fiction	5	2
Mo[illegible]		

	Small	Large
[illegible]	7	5
Cat	[illegible]	2
Mode		

	[illegible]rful	Plain
Baseball Cap	6	6
Winter Hat	6	
Mode		

	Short Trip	[illegible]
Car	5	[illegible]
Bicycle	4	5
Mode		

	Packaged	Not Packaged
Fruit	6	4
Crackers	5	6
Mode		

Name: _____ 44

Curriculum Connection
D1.3

Creating a Concrete Graph - Colour

Instructions	Survey your class and use the data in a concrete graph

Survey Question: What is your favourite colour?

Instructions – When a classmate tells you their favourite colour, put a dot in the box above the colour (for fun, try to use the same colour they told you).

Blue	**Red**	**Pink**	**Green**	**Purple**

LEGEND

Blue =

Red =

Pink =

Green =

Purple =

Questions

1) What is the most popular colour?

_____

2) What is the least popular colour?

_____

3. What is the mode?

_____

Name: _____ 45

Curriculum Connection
D1.2, D1.3

Horizontal Concrete Graph - Seasons

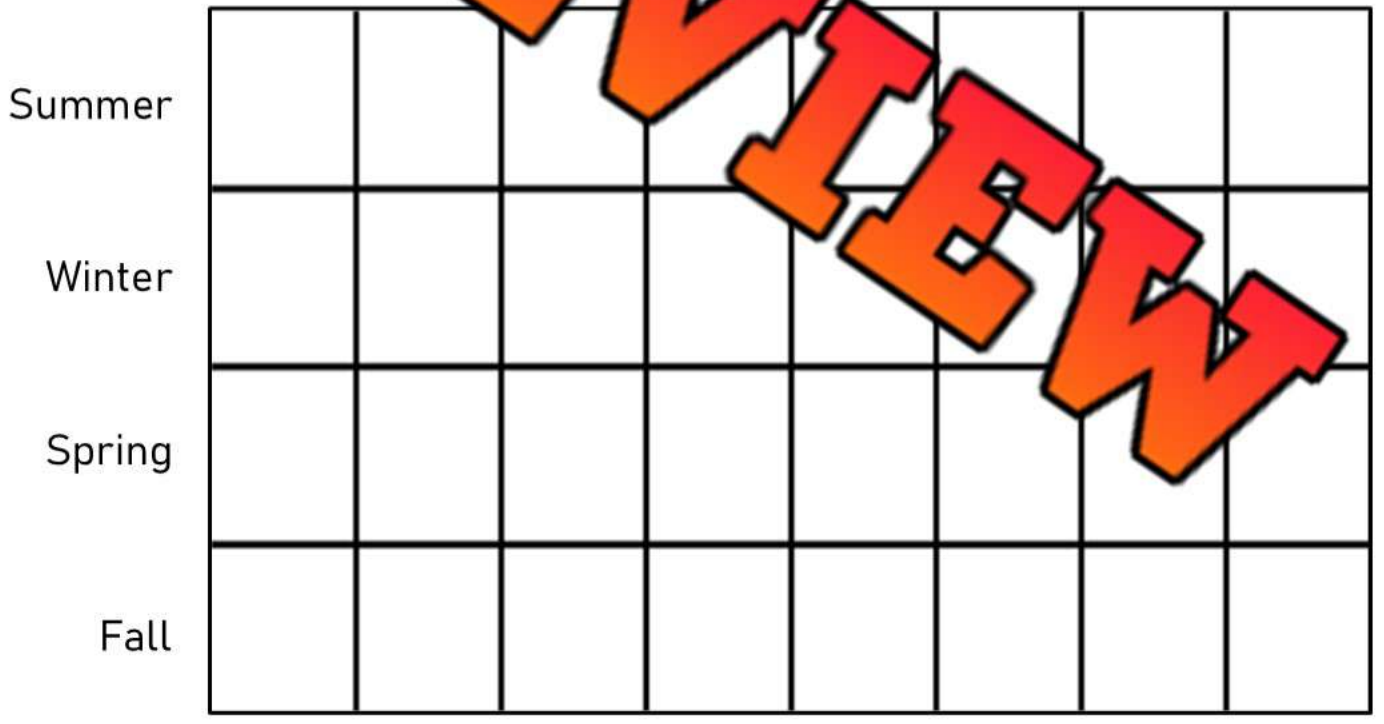
Questions | Survey your class and use the data in a concrete graph

Survey Question: What is your favourite season?

Category	Summer	Winter	Spring	Fall
Tally				
Frequ				

LEGEND

Summer =  Wi =  Spring =  Fall = 



Questions

1) What is the most popular season? _____ Least popular? _____

2) What is the mode? _____

Name: _____ 46

Curriculum Connection
D1.2, D1.3

Creating a Concrete Graph

Instructions Survey your class and use the data in a concrete graph

Survey Question: _____

Catego				
Tal				
Freq cy				

LEGEND

_____ =

_____ =

_____ =

Name: _____ 47

Curriculum Connection
D1.2, D1.3

Creating a Line Plot – Hobby

Instructions Survey your class and use the data in a concrete graph

Survey Question: What is your favourite hobby?

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

Cate	Reading	Computer	Gaming	Playing Outside
Frequency				

Reading	**Computer**	**Gaming**	**Playing Outside**

Questions

1. What is the most popular hobby?

_____

2. What is the least popular hobby?

_____

3. What is the mode?

_____

Name: _____ 49

Curriculum Connection
D1.5

Horizontal Pictograph - Candy

A **pictograph** is a graph that displays data using symbols or pictures. Read the pictograph below and answer the questions.

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		
Ste		
Tony		
Jill		
Stacy		

= 1 Can

a) How much is one 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) What is the mode of the data?	
f) Who would you want to trick or treat with? Why?	

Name: _____ 51

Curriculum Connection
D1.3, D1.4

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	5
Neill	3
Steve	4
Dane	8
Chris	8

Questions Create a pictograph that displays the data above

Kevin	
Neill	
Steve	
Dane	
Chris	

= 1 ticket

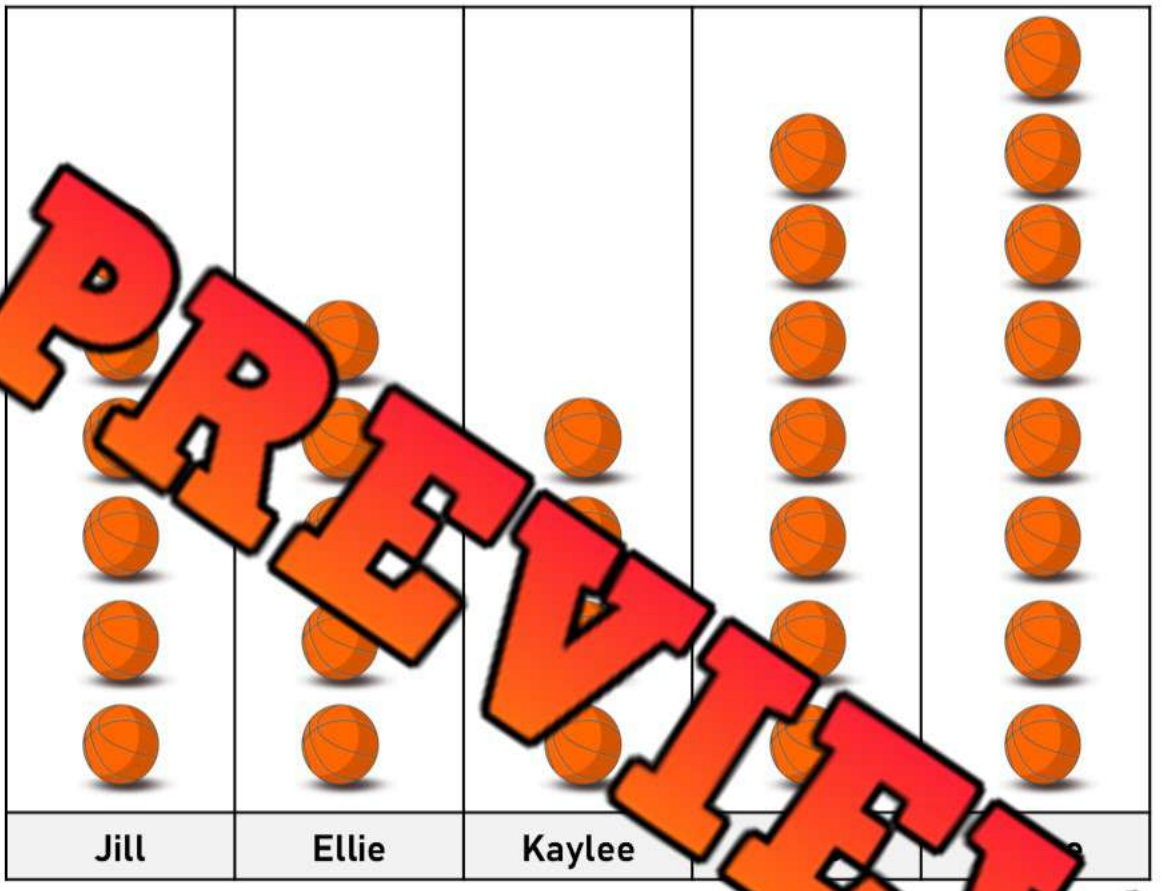
1) Who won the most tickets?	
2) How many more tickets did Dane win than Neil?	
3) How many total tickets did the 5 kids win?	
4) What is the mode?	

Name: _____ 52

Curriculum Connection
D1.5

Vertical Pictograph – Basketball Points

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



= 1 point

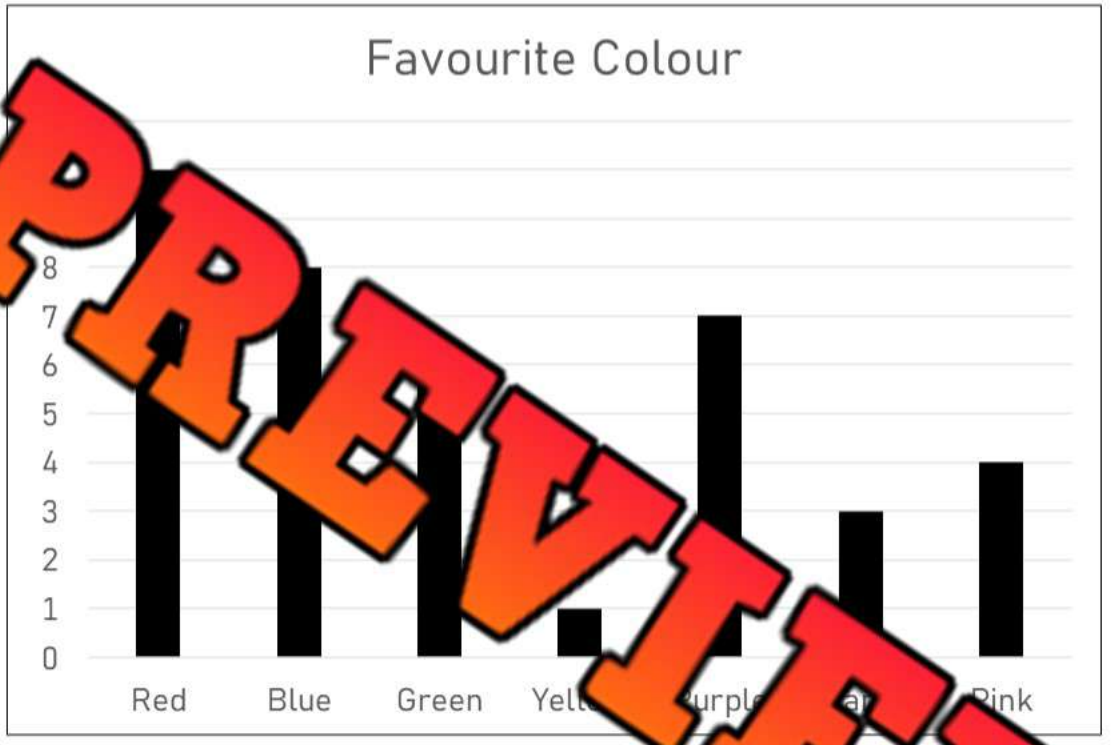
a) How many points is one basketball worth?	
b) Who scored the least number of points?	
c) Who scored the most points in the game?	
d) How many total points did all 5 girls score?	
e) How many more points did Jill score than Kaylee?	
f) Is Grace the best basketball player? Explain why or why not?	

Name: _____ 55

Curriculum Connection
D1.5

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.



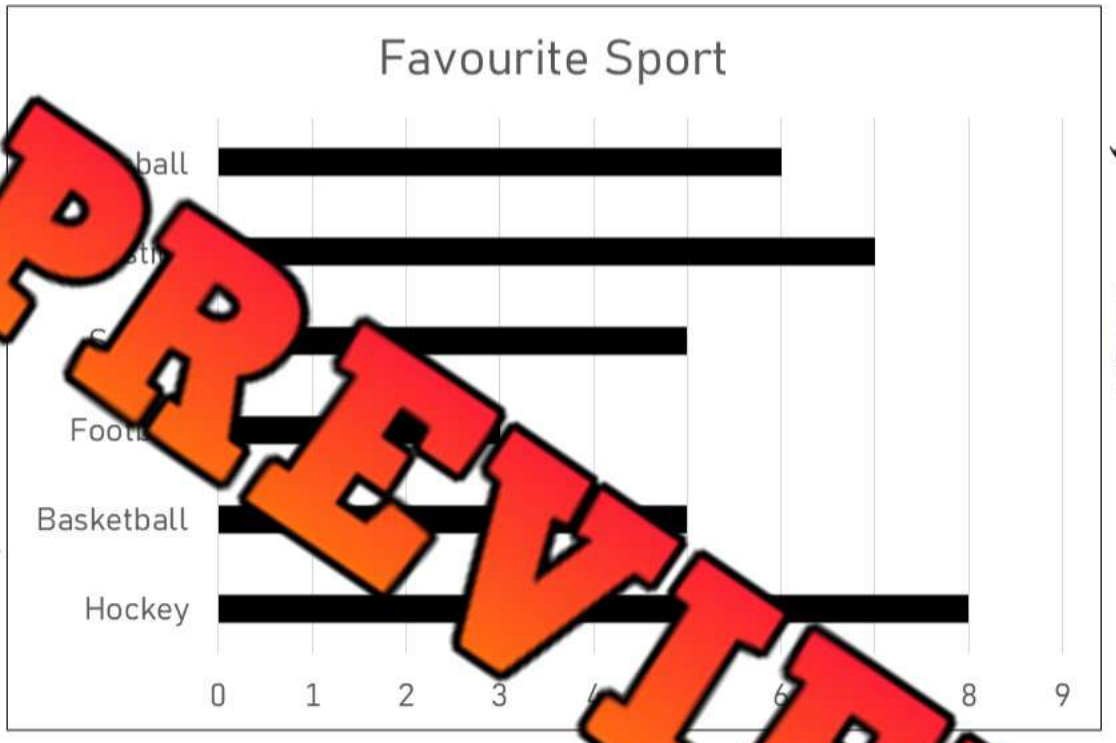
a) Which colour was most popular?	
b) What is the mode of the data set?	
c) How many people chose yellow as their favourite?	
d) How many people like red and blue the best?	
e) How many more people like red than orange?	
f) What two colours add up to the amount of red?	
g) How many people were surveyed?	

Name: _____ 56

Curriculum Connection
D1.5

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.



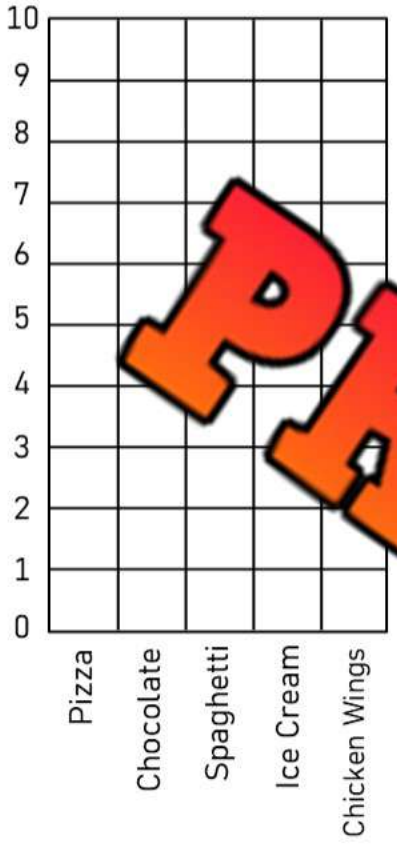
a) Which sport was most popular?	
b) What is the mode(s) of the data set?	
c) How many people chose gymnastics as their favourite?	
d) How many kids liked basketball and soccer the best?	
e) How many kids liked hockey more than football?	
f) What two sports add up to the total for hockey?	
g) How many kids were surveyed?	

Name: _____ 57

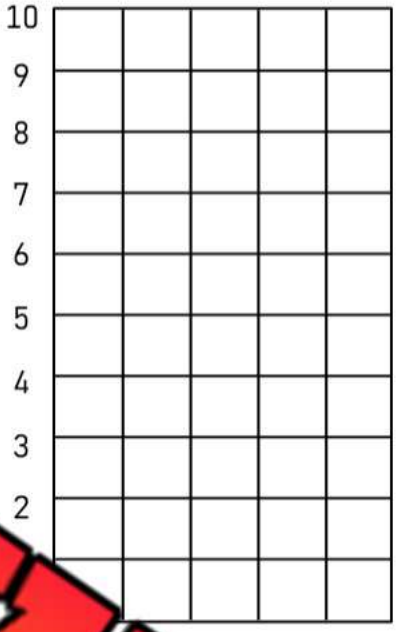
Curriculum Connection
D1.3

Drawing Bar Graphs

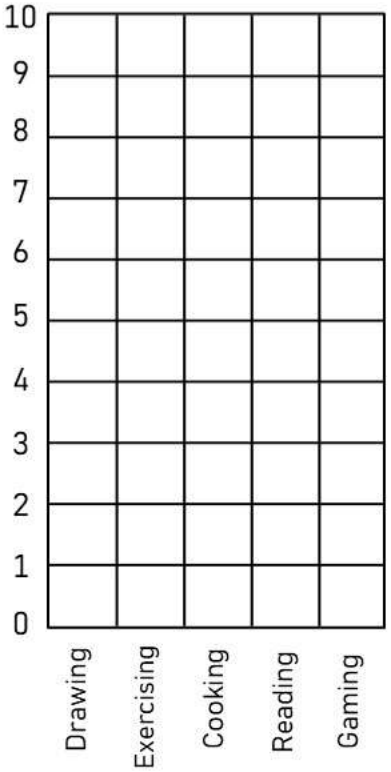
Questions | Draw the bars for each of the bar graphs below



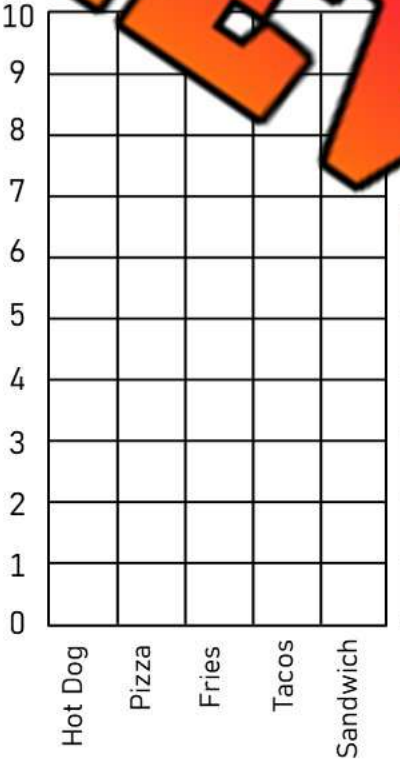
Favourite Food	# of votes
Pizza	9
[illegible]olate	4
[illegible]ghe	6
Ice Cr[illegible]	[illegible]
[illegible]	8
W[illegible]	[illegible]



Player	# of points
Jake	3
Nathan	1
Courtney	7
Ashley	6
Luke	10



Favourite Hobby	# of votes
Drawing	9
Exercising	5
Cooking	5
Reading	8
Gaming	2



[illegible]vourite Food	# of votes
Hot Dog	1
Pizza	3
Fries	5
Tacos	7
Sandwich	9

Curriculum Connection
D1.3

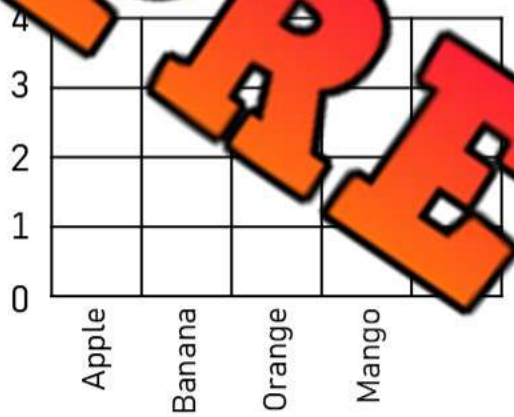
Exit Cards

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.

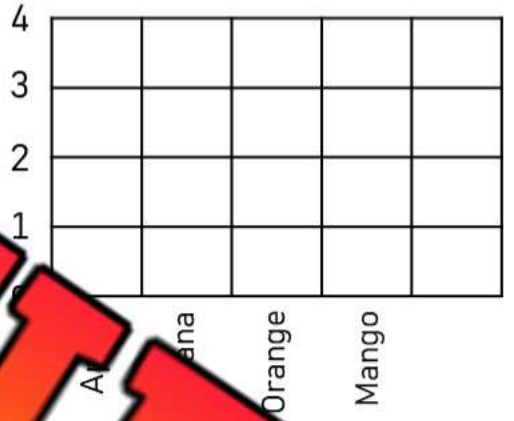
Fruit	Apple	Banana	Orange	Mango
Votes	2	4	3	1



Name: _____

Draw the bars for the bar graphs below.

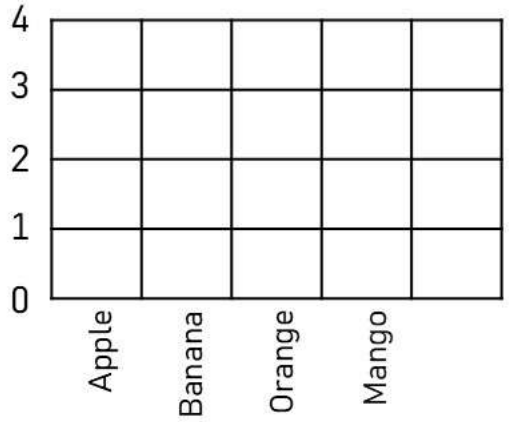
Fruit	Apple	Banana	Orange	Mango
Votes	2	4	3	1



Name: _____

Draw the bars for the bar graphs below.

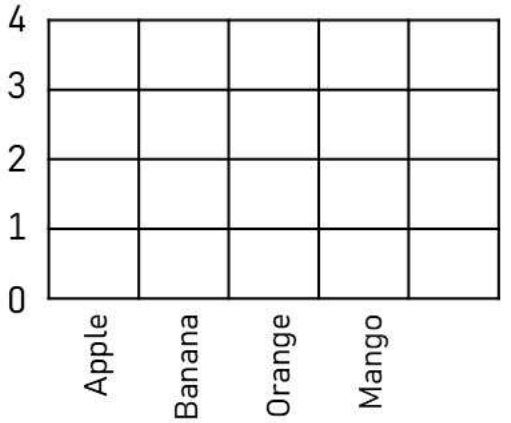
Fruit	Apple	Banana	Orange	Mango
Votes	2	4	3	1



Name: _____

Draw the bars for the bar graphs below.

Fruit	Apple	Banana	Orange	Mango
Votes	2	4	3	1



Name: _____ 60

Curriculum Connection
D1.2

Collecting Data - Qualitative

Survey Question	Collect data by asking your classmates your survey question

When we collect qualitative data, we are asking a survey question that results in a category being chosen. Qualitative data uses words as the categories, and quantitative data uses numbers.

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

Survey Question	_____
Example: What is your favourite colour?	_____
	_____

Categories					
Tally					
Frequency					

Interpreting Your Survey Results

1. How many people did you survey? _____
2. Which category was the most popular? _____
3. Which category was the least popular? _____
4. 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: _____ 61

Curriculum Connection
D1.3

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

Name: _____ 64

Curriculum Connection
D1.1

Graphing: Representing Carroll Diagram

Favourite Ice Cream	Vanilla	Not Vanilla
Plain Cone	12	10
Not Plain Cone	7	18

Part 1 Create a pictograph that represents the data in the Carroll Diagram

1	How many students chose vanilla ice cream with a plain cone?	
2	How many students chose not vanilla ice cream with a plain cone?	
3	Which combination had the most students?	
4	Which combination had the fewest students?	
5	How many students chose vanilla ice cream in total?	
6	What is the mode for favourite ice cream cone?	
7	How many students were surveyed in total?	

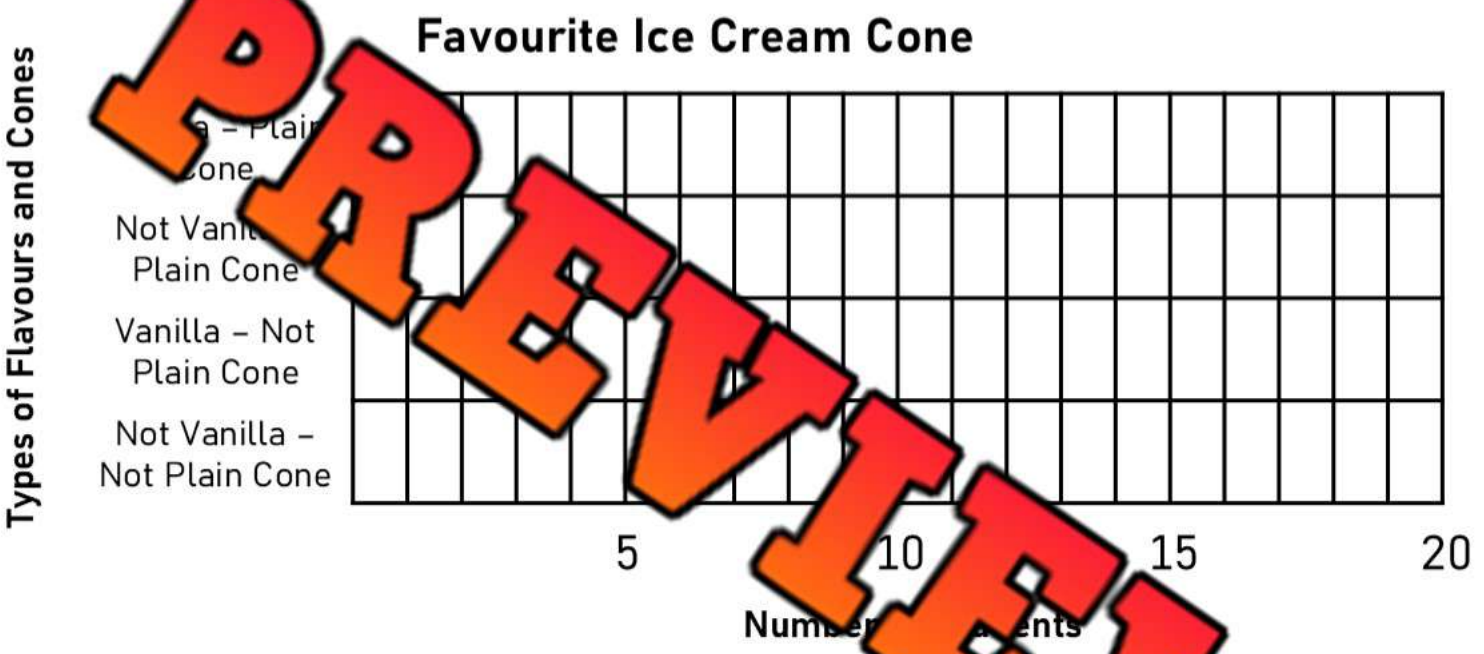
Name: _____ 65

Curriculum Connection
D1.1

Graphing: Representing Carroll Diagram

Favourite Ice Cream	Vanilla	Not Vanilla
Plain Cone	12	10
Not Plain Cone	7	18

Part 2 Create a bar graph that represents the data in the Carroll Diagram



1	What is different about a bar graph than a pictograph
	_____ _____ _____
2	Which graph do you think is easier to read for this data? Explain.
	_____ _____ _____

Name: _____ 66

Curriculum Connection
D1.1

Graphing: Representing Carroll Diagram

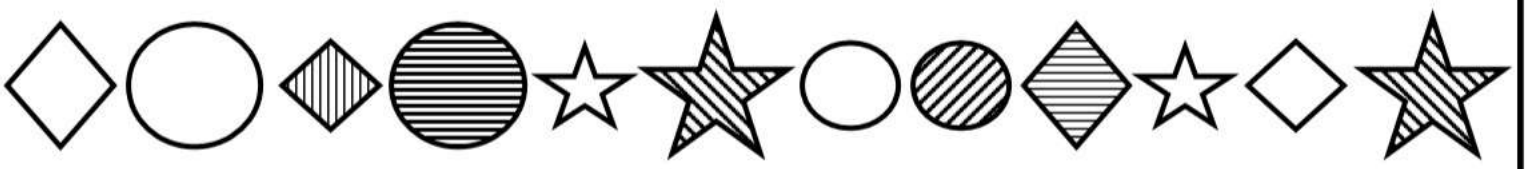
Favourite Ice Cream	Vanilla	Not Vanilla
Plain Cone	12	10
Not Plain Cone	7	18

Part 3 Create a line plot that represents the data in the Carroll Diagram

1	Which graph do you think best represents the data? Bar graph, pictograph, or line plot? Explain.
2	How are these graphs all similar?

Name: _____ 67

Unit Quiz – Data Literacy



A B C D E F G H I J K L

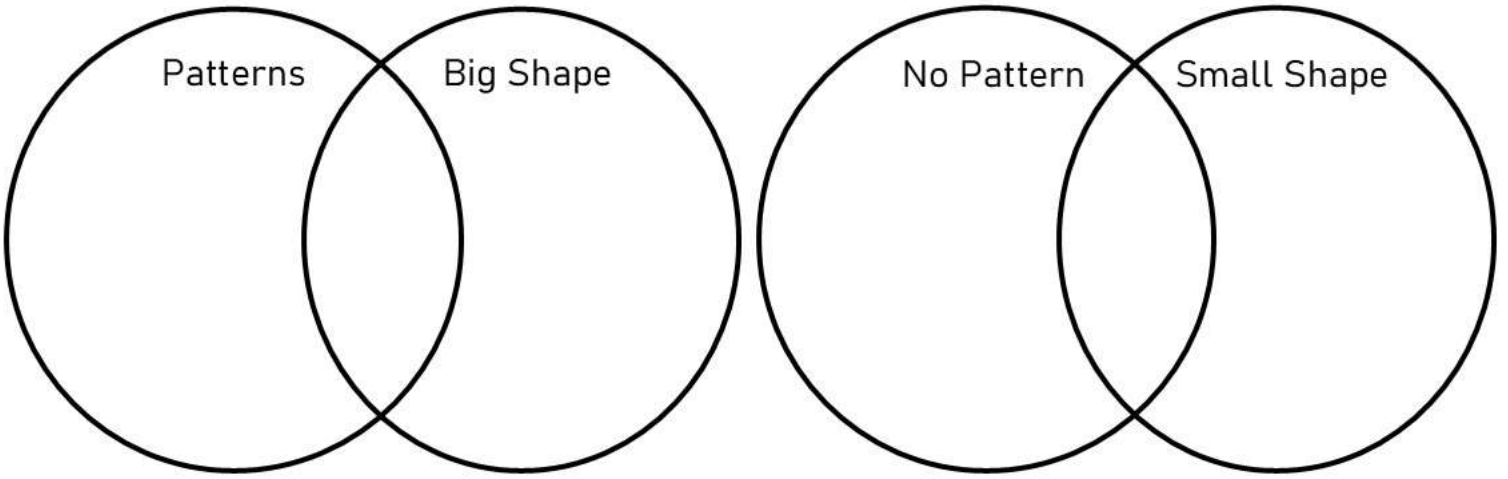
Part 1 Sort the shapes into the correct categories in the Carroll diagram

	Pattern	No Pattern
g Shap		
Small Shap		

Part 2 Fill in the two-way ta

	Pattern	N ttern	Total
Big Shape			
Small Shape			
Total			

Part 3 Sort the numbers using the Venn Diagrams



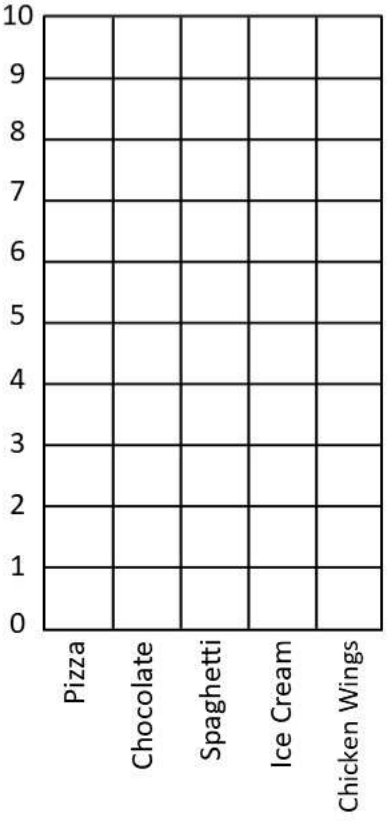
Part 4 Count the tally marks

_____	_____	_____	_____	_____

Part 5 Draw tally marks that match the number

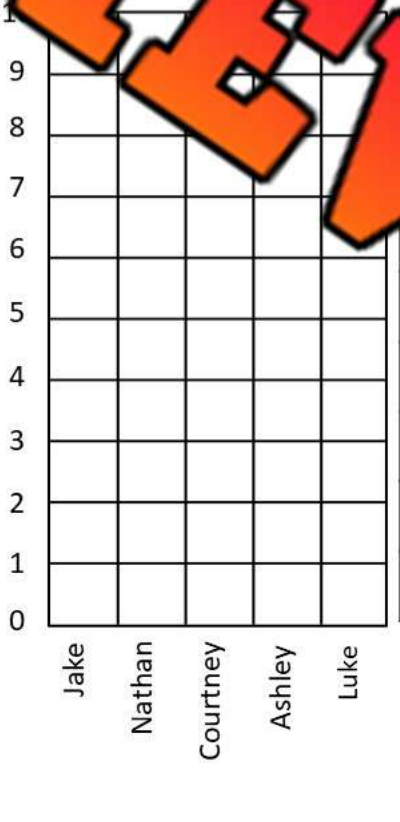
3 =	10 =	17 =
15 =		20 =

Part 6 Draw the bars for eac[illegible] bar[illegible]low



Favourite Food	# of votes
Pizza	7
Chocolate	4
Spaghetti	3
Ice Cream	5
Chicken Wings	8

Mode =_____



	# of points
Jake	2
Nathan	5
Courtney	8
Ashley	10
Luke	4

Mode =_____

Grade 2
D2. Probability

	Curriculum Expectations	Pages That Cover the Expectations
D2.1	use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of complementary events happening, and use that likelihood to make predictions and informed decisions	70 - 82
D2.2	make and test predictions about the likelihood that the mode(s) of a data set from one population will be the same for data collected from a different population	83 - 88

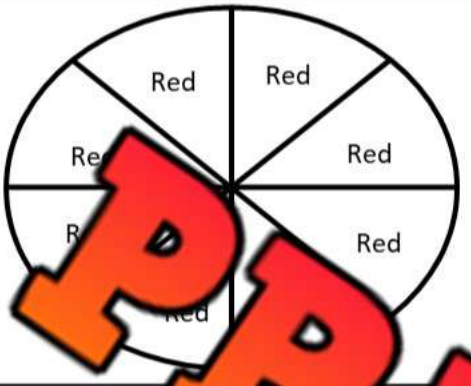
Name: _____ 70

Curriculum Connection
D2.1

Describing Probability – Certain or Impossible?

Instruction Read the spinner and describe if the event is certain or impossible

1)

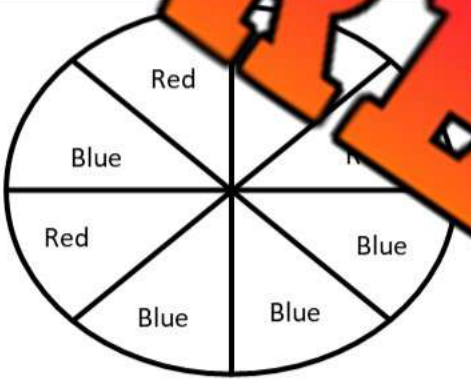


a) Spinning a red is _____

b) Spinning a blue is _____

c) Spinning a yellow is _____

2)

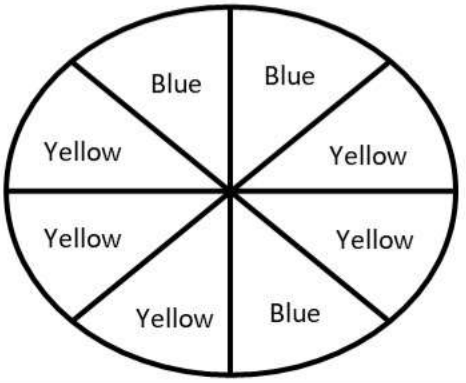


a) Spinning a purple is _____

b) Spinning a blue or red is _____

c) Spinning a yellow is _____

3)

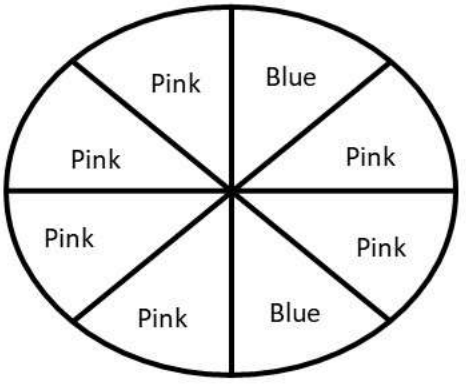


a) Spinning a yellow or blue is _____

b) Spinning a green is _____

c) Spinning a red is _____

4)



a) Spinning a pink or blue is _____

b) Spinning a red is _____

c) Spinning a green is _____

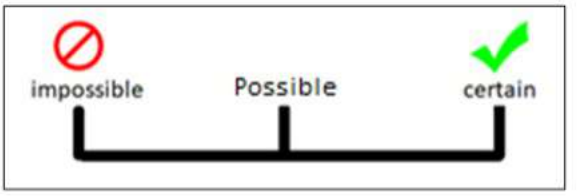
Name: _____ 71

Curriculum Connection
D2.1

Describing the Likelihood of Events

We can describe the likelihood of events by using the following terms:
impossible, possible, certain

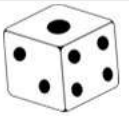
Impossible = Cannot happen (seeing a dinosaur)
Possible = It could happen (eating a treat today)
Certain = Will definitely happen (breathing today)



Instruction: Use the terms to describe the likelihood of the events below

1. You will grow today.
2. You will have recess today.
3. You will sleep tonight.
4. You will find money on the ground today.
5. You will buy a lottery ticket and win.
6. It will rain or snow today.
7. You will teleport to Africa today.
8. You will roll a 2 when you roll a dice.
9. You will watch TV today.
10. Your teacher will give you free time today.






Name: _____ 72

Curriculum Connection
D2.1

Describing the Likelihood of Events

Part 1 — Circle if the likelihood is possible or impossible

a) You will eat something today

Impossible
Certain

b) You will drive home from school

Impossible
Certain

c) Yo… …m today

Impos…
C…

d) You will breathe today

Impossible
Certain

Part 2 — Circle if the li…hood … …ible or impossible

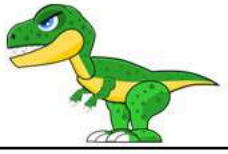
a) You have a guest speaker today

Certain
Possible
Impossible

b) … will … a book today

Certain
…ossible
…le

c) You will see a dinosaur today



Certain
Possible
Impossible

d) You play in the NHL … …ear.

Certain
Possible
Impossible

e) You will drink pop today

Certain
Possible
Impossible

f) You will drink something today.

Certain
Possible
Impossible

Name: _____ 74

Curriculum Connection
D2.1

Activity: Probability Charades

Objective

What are we learning about?

Students will learn to identify and classify events as certain, possible, or impossible by acting out various scenarios and engaging in critical thinking.

Materials

What you will need for the activity.

- A [illegible]ds with different events written [illegible] (e.g., "[illegible]n tomorrow," "You will grow wing[illegible] and fly[illegible] will rise tomorrow").
- A timer ([illegible] keep [illegible]me moving).
- A classroom [illegible] where [illegible]an easily act out their scenar[illegible]
- Whiteboard and mar[illegible]

Instructions

How you will compl[illegible] activ[illegible]

1. Begin by explaining the concepts of certa[illegible]sible[illegible]ssible events. Give examples to ensure students understand th[illegible]pro[illegible]
2. Divide the class into two teams. If you prefer, you c[illegible]hav[illegible]nts take turns individually instead of dividing into teams.
3. Provide each team or individual student with a scenario card. The [illegible]t acting out the scenario must not speak but can use gestures and moveme[illegible]to convey the event or they can draw it on the chalkboard/whiteboard.
4. The remaining students or the opposite team will try to guess the event being acted out and decide whether it is a certain, possible, or impossible event.
5. The student or team correctly identifying the event and its probability classification earns a point (or have this student have the choice to go next). Continue the game until all scenario cards have been acted out.
6. At the end of the game, discuss some of the scenarios with the class to reinforce understanding and clarify any misconceptions.

Name: _____ 75

Curriculum Connection
D2.1

Scenario Cards | A set of scenario cards with different events

Turning into a cat	Jumping to the moon
Getting an [illegible] test	Finding a coin on the ground
Meeting a dinosaur	[illegible]gs and flying
The sun rising tomorrow	Brushing your teeth before bed
Riding a bicycle	Catching a fish

Name: _____ 76

Curriculum Connection
D2.1

Scenario Cards | A set of scenario cards with different events

Raining cats and dogs	A cat driving a car
A tree [illegible]	Shooting a basketball and making it
A cow jumping over the moon	Fol[illegible] treasure map and fi[illegible]easure
Winning a race	Catching a butterfly
Breathing	Opening a door

Name: _____ 77

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, it is possible you could get any of the numbers from 1-6.

Questions	Use these terms to describe the likelihood: Certain, Possible, Impossible

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 1, 2, 3, 4, 5, or 6?	
4) What is the likelihood of you rolling a 7?	
5) What is the likelihood of you rolling an odd number?	
6) What is the likelihood of you rolling a 0?	

Name: _____ 78

Curriculum Connection
D2.1

Describing the Likelihood of Events

Cookie Jar

There were 12 cookies in a cookie jar. 7 of the cookies were chocolate chip (cc), 2 were oatmeal raisin (or), and 3 w[illegible]ouble chocolate (dc).

Questions	Use these terms to describe the likelihood: Certain, Possible, Impossible

1) What is the likelihood of you picking o[illegible]ouble chocolate cookie?	
2) What is the likelihood of you picking out a cookie?	
3) What is the likelihood of you picking out an oatmeal raisin cookie?	
4) What is the likelihood of you picking out a chocolate chip, oatmeal raison, or a double chocolate cookie?	
5) What is the likelihood of you picking out a brownie?	
6) What is the likelihood of you picking out a peanut butter cookie?	

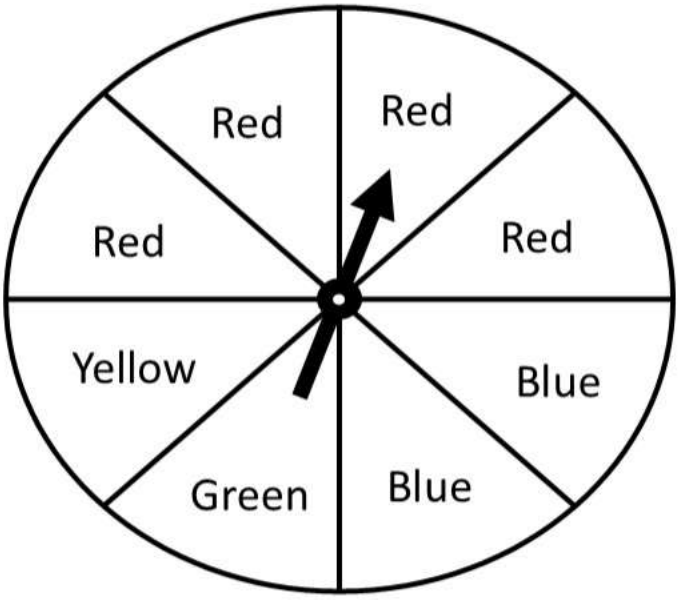
Name: _____ 79

Curriculum Connection
D2.1

Describing the Likelihood of Events

Spinner

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 impossible.



Questions	Use these terms to describe the likelihood: Certain, Possible, Impossible

1) What is the likelihood of landing on a red part?	
2) What is the likelihood of landing on a blue part?	
3) What is the likelihood of landing on a purple part?	
4) What is the likelihood of landing on an orange or black part?	
5) What is the likelihood of landing on a red, blue, green, or yellow part?	
6) What is the likelihood of landing on a yellow part?	

Name: _____ 80

Curriculum Connection
D2.1

Describing the Likelihood of Events

Marbles

There are 14 marbles in a bag. What is the likelihood of you pulling out a white, grey, or black marble?

Frequency Fill in the frequency table below

Marble Colour	Frequency

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

1) What is the likelihood of pulling out a black marble?	
2) What is the likelihood of pulling out a grey, black, or white marble?	
3) What is the likelihood of pulling out a white marble?	
4) What is the likelihood of pulling out a blue 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?	

Name: _____ 81

Curriculum Connection
D2.1

Weather Forecast Decision Making

Day	Weather	Temperature	Chance of Rain
Friday	Cloudy	14°C	20%
Saturday	Sunny	21°C	0%
Sunday	Rainy	12°C	80%

Questions Answer the questions below

1) What day look[illegible] playing outside? Why?	
2) What day wo[illegible] bring[illegible]lla?	
3) If you were planning [illegible] which [illegible]uld you choose?	
4) Which day has the highest c[illegible]nce	

5) If someone planned a birthday par[illegible] outside[illegible] pr[illegible]ms might happen based on this forecast?

6) If your friend said they were going to the beach this weekend, wh[illegible]e would you give them?

7) What kind of clothes would someone pack if they were going away for this weekend? Why?

Name: _____ 82

Curriculum Connection
D2.1

Weather Forecast Decision Making

Instructions	Write your own weather forecast for the weekend. Then answer the questions.

Day	Weather	Temperature	Chance of Rain or Snow
Friday			
Satur			
Sund			

1) What day looks be[illegible] Why?	
2) If you had work to do insi[illegible]ich [illegible]ou do it?	
3) What activity would work on all th[illegible]ays?	

4) If you had to plan a picnic, which day wou[illegible] choo[illegible]y?

5) What clothes would you wear on each day based on your forecas[illegible]

Friday	
Saturday	
Sunday	

6) Which day would be hardest to plan for? Why?

Name: _____ 85

Curriculum Connection
D2.2

Predicting Survey Results – Drink - Class

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 survey question: "What is your favourite drink?"

Survey Question : What is your favourite drink?

Category	Water	Juice	Tea	Pop	Coffee
Frequency					

2) Complete the survey by asking your classmates.

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) If you asked adults the same question, which two drinks do you think will be the most popular?

Name: _____ 86

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) How were the results different than when you asked kids?

Name: _____ 87

Curriculum Connection
D2.2

Predicting Survey Results - Kids

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

1) Think of a survey question to ask 10 students in your class. Predict the survey results by filling in the table below.

Survey Qu n					
Categor					
Frequ					

2) Complete the s by as y lassmates.

Survey Question					
Categories					
Tally					
Frequency					

Results How was your prediction?

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

2) If you asked adults the same question, what do you think will be different?

Name: _____ 88

Curriculum Connection
D2.2

Predicting Survey Results - Adults

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

1) Predict the survey results if you asked the same question to 10 adults (use the same survey question you asked the 10 students in you class).

Survey Qu n					
Categor					
Frequ					

2) Complete the s by as ferent adults.

Survey Question					
Categories					
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?

Name: _____ 89

Unit Quiz - Probability

Part 1 Choose certain, possible or impossible to describe the likelihood of the event happening.

a) You eat some pizza today.

Certain
Possible
Impossible

b) You listen to music today.

Certain
Possible
Impossible

c) You wash [illegible] today.

[illegible]
[illegible]
[illegible]

d) You fly home after school.

Certain
Possible
Impossible

e) Your heart beats today.

Certain
Possible
Impossible

f) [illegible] drive [illegible] school bus home.

Certain
[illegible]ossible
[illegible]e

Part 2 Use these terms to describe the likelihood: Certain, Poss[illegible] Impossible

1. What is the likelihood of you rolling a 6?

2. What is the likelihood of you rolling a 0?

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