Level 2

Data Handling

Student Worksheets

Sample!

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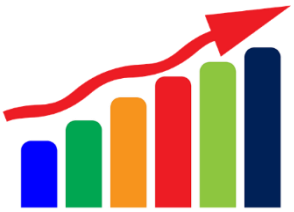
Contents

Assessment Brief 1

Course:	Data Handling
Course Code:	M2N08
Assessment:	Collection of Work
Title:	**Data Handling Introduction**
Weighting:	Collection of Work 100%



Guidelines

You will be expected to:

1. Identify uses of data in everyday life, e.g. price comparisons, surveys
2. Identify basic approaches to data collection, e.g. record sheets, tally system, audio-visual records

Assessment criteria

- Exercises and tasks must be complete and correct.
- Answers must be set out in a logical way.
- Give at least 3 examples of data in everyday life, e.g. weather map, sign, menu, plan, list, etc.
- Collect data in a specific situation, e.g. weather on the phone, directions using Google Maps, etc.
- Use the vocabulary of data handling, e.g. data, information, presented, graph, etc.
- Name at least 3 ways to collect data.
- Give at least 3 examples of sorting data.
- Examples of data categories are frequency, amount and size.
- Read and interpret simple graphs showing everyday data.

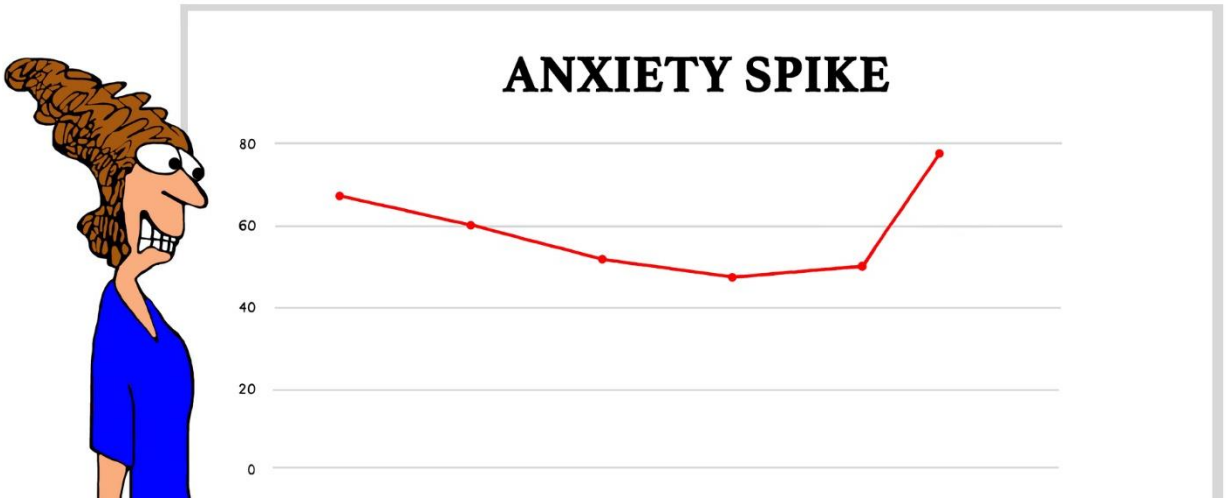
- Complete a short survey.
- Sort basic data, e.g. by colour, amount, type, etc.
- Use a mindmap to present data.
- Discussions may be recorded.
- Photographic and/or video evidence may be required.

Submission date:

Declaration of Authenticity: I confirm that this is my own original work.

Signed:

Date:

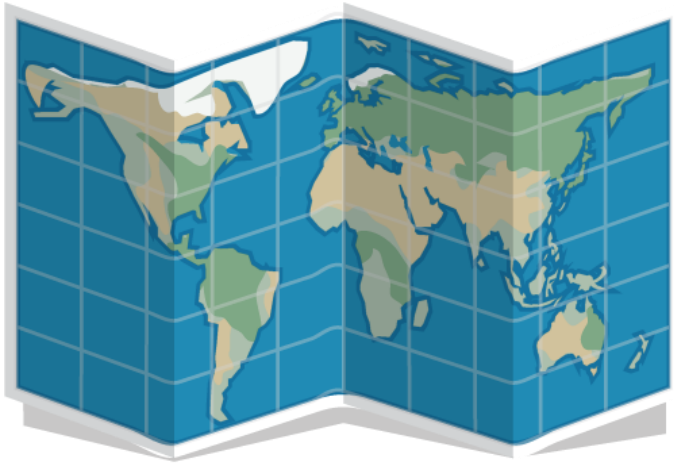


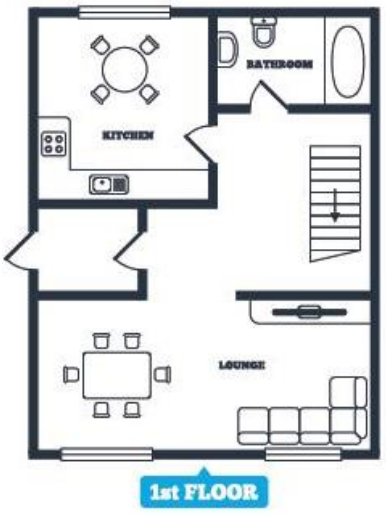
Data can be presented to you as information in the form of pictures.

Examples: signs, maps, plans, instructions or emoticons.

3. Label the pictures.

plan, sign, recipe, map



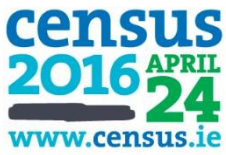


B. Data in Everyday Life

1. Give examples of where people use data in everyday life.

_____

_____



2. Give examples of where you use data in everyday life.

_____

_____

3. What data will you use? Write the answers.

knives and forks, mobile contacts, timetable, price list, menu

a) Finding a friend's number _____

b) Setting the table _____

c) Ordering a meal _____

d) Working out cost of shopping _____

e) Checking bus times _____

C. Ways to Collect Data

I. Complete the sentences.

online, questions, see, face-to-face

a) A questionnaire is a set of _____.

b) When you ask questions in person, this is a _____ interview.

c) When you answer a questionnaire on the Internet, this is an _____ questionnaire.

d) Observation is something you _____, hear or notice.

I. Use counting to collect the data.

a) Number of bananas = _____

b) Number of pears = _____

c) Number of apples = _____

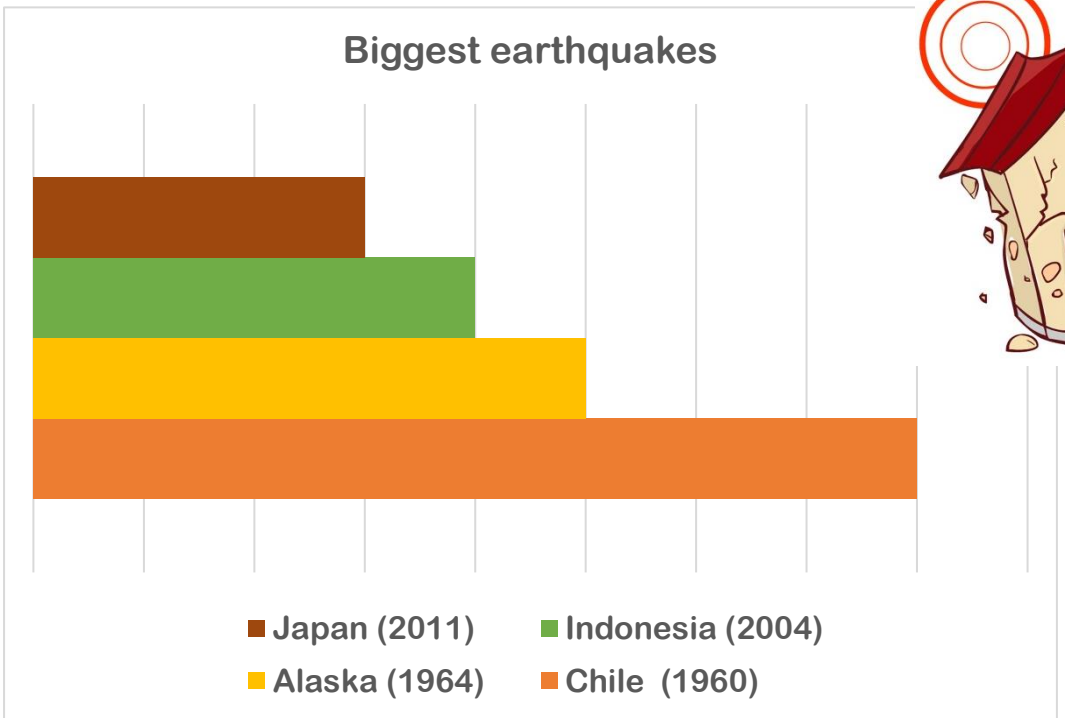
d) Number of tangerines = _____

e) Number of plums = _____

2. Look at the example of sorting below:

Large Earthquakes	
Place and Year	Richter Scale
Chile (1960)	9.5
Alaska (1964)	9.2
Indonesia (2004)	9.1
Japan (2011)	9
Chile (1960)	9.5

The information can also be sorted, using a graph. See the same information below.



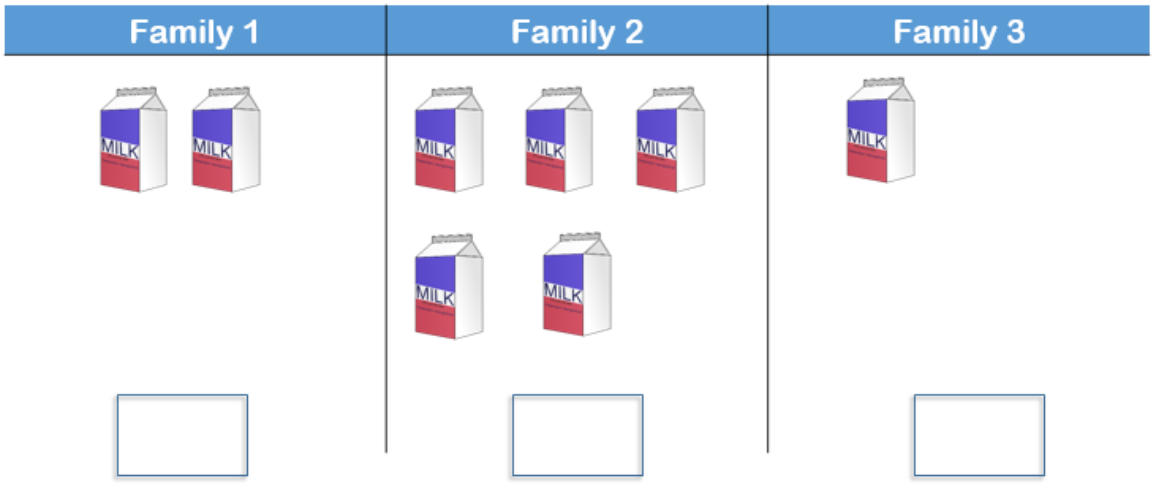
3. Write a fact based on this data.

. Describing Data - Pictograph

1. Match the beginnings and endings.

a) A pictograph has	the same size.
b) A pictograph must	have a title.
c) Pictures should be	pictures to show data.

2. Look at this graph. Answer the questions.



a) What title could this graph have? _____

b) Write the totals in each column.

c) What is the data? _____

d) Write one fact based on the data.

_____

_____

1. Four friends counted how many minutes they spent on Facebook in one day. This table shows the results. Write in the totals.

𝍸 = 5 minutes

Name	Tally	Total
Diane	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	
Joe	𝍸 𝍸	
Tim	𝍸 𝍸 𝍸	
Helen	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	

a) How long does Helen spend on Facebook every day? _____

b) Who spends the least time on Facebook every day? _____

c) Who spends more time on Facebook – Tim or Helen? _____

d) Does Diane spend longer than an hour on Facebook every day?

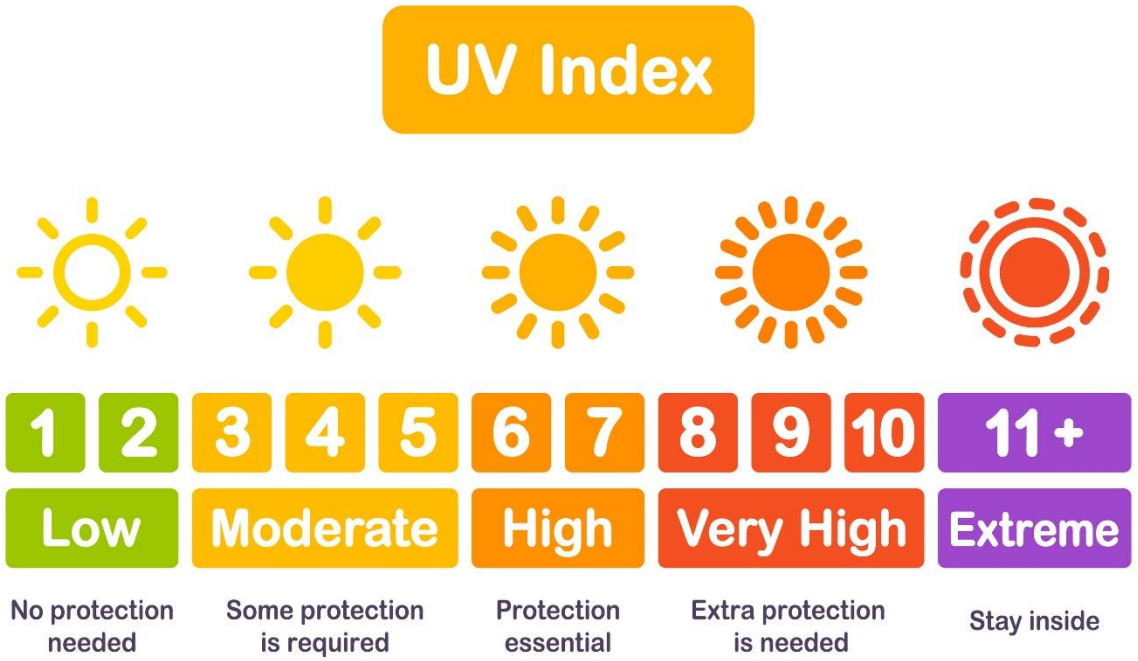
_____

e) How many minutes does Tim spend on Facebook? _____

f) How much time do the friends spend on Facebook altogether?

_____

5. Look at the diagram below. Answer the questions.



_____

b) If the UV index is extreme, what should you do?

_____

c) What is the UV index when represented by 1 and 2?

_____

d) What kind of protection do you need for UV index 8, 9 and 10? _____

e) When some protection is needed, what word is used to describe the UV index? _____

6. What is the UV index today, in your area? _____

(You can check: https://www.met.ie/uv-index)

1. At a school, a survey was carried out and one question was asked? Do you think school uniforms should be compulsory?

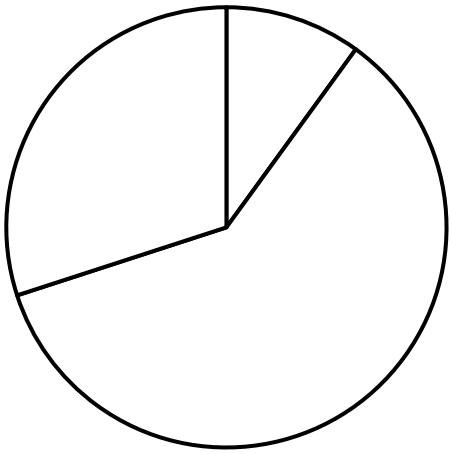
The results of the survey are as follows:

RESPONSE	NUMBER
Yes	30
No	180
Not Sure	90

Complete the key and the graph title.

Graph Title:

_____

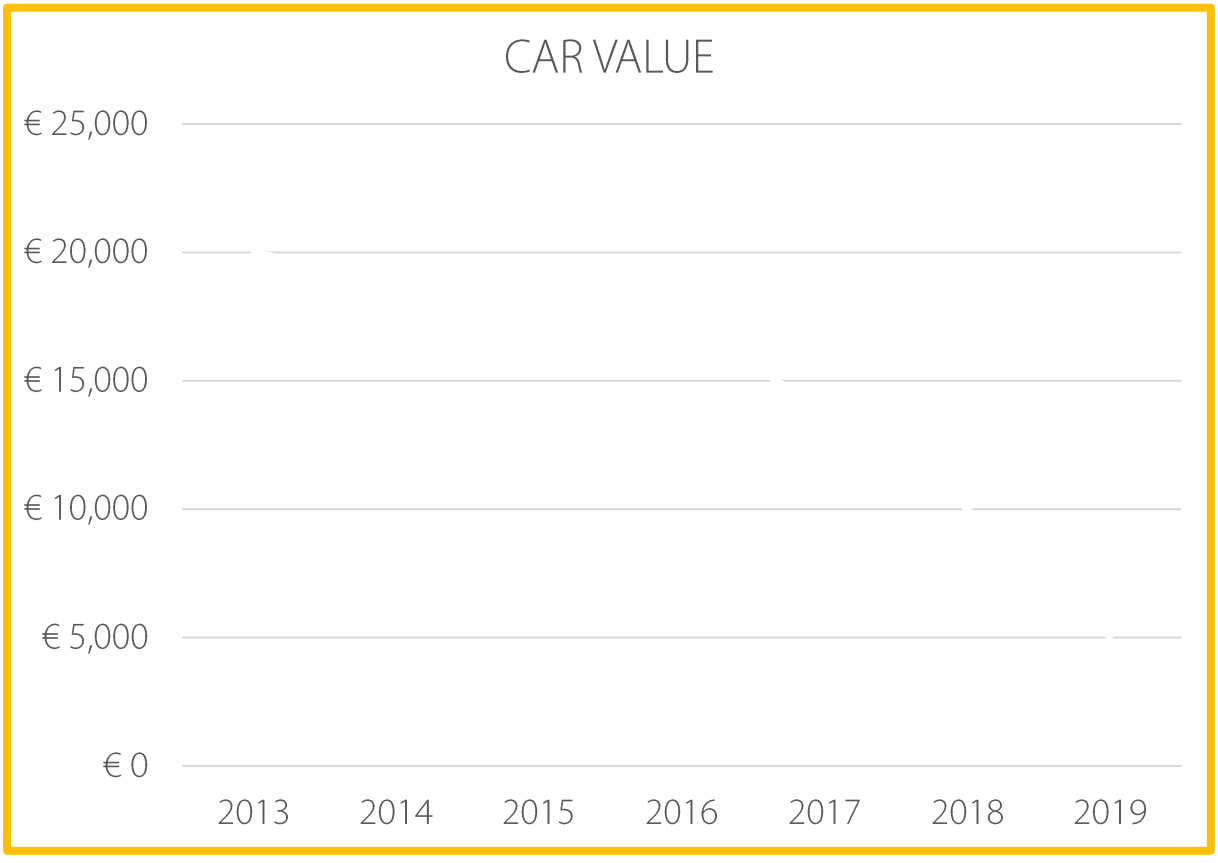


☐ Yes ☐ No ☐ Not Sure

1. Look at the value of my car over the years.

YEAR	VALUE
2013	€ 20,000
2014	€ 19,000
2015	€ 18,000
2016	€ 17,000
2017	€ 14,000
2018	€ 10,000
2019	€ 5,000

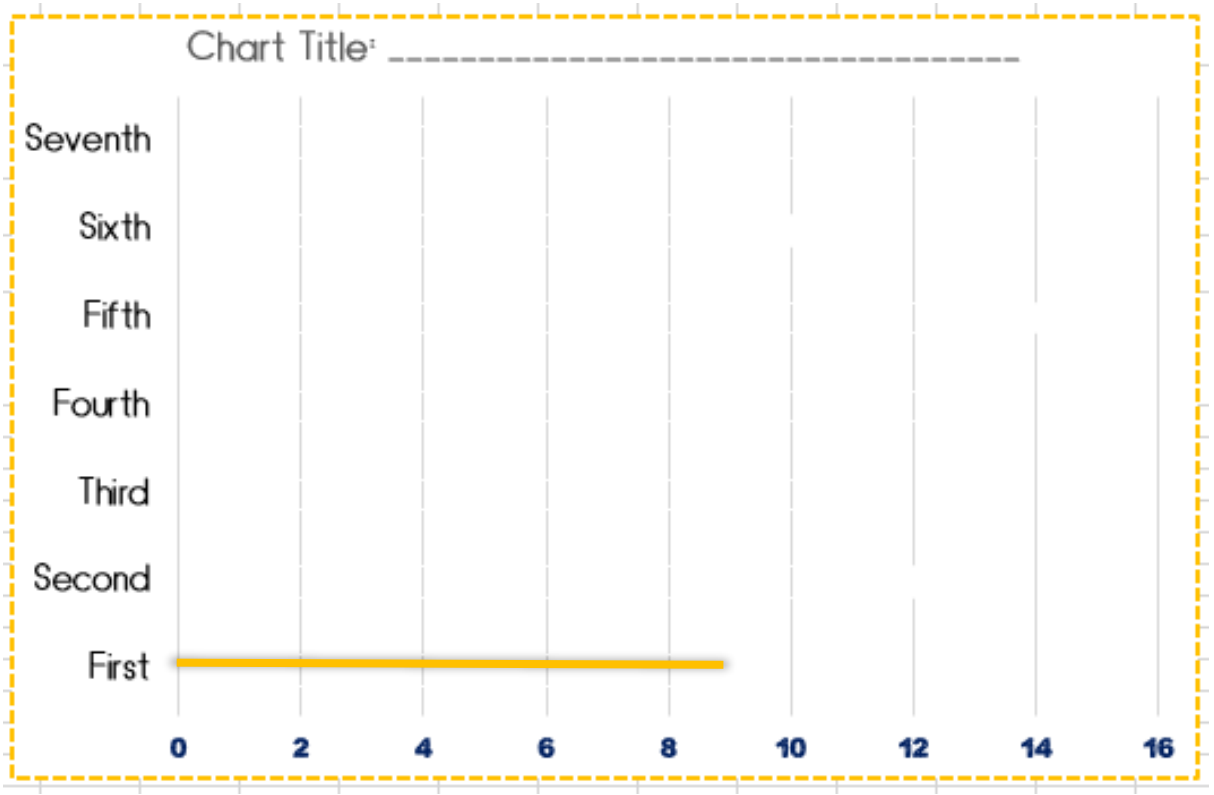
Plot this data on the graph below. Then join the dots with lines.



1. There were 7 competitions for the 50-metre sprint, and these were the times.

Competition	Winning Time (Seconds)
First	9
Second	12
Third	11
Fourth	13
Fifth	14
Sixth	10
Seventh	15

Present the information on the graph below. The first one is done for you.



12. In pairs: Play Rock Paper Scissors. Do at least 12 rounds. Each time, record the winning move:

ROUND	ROCK	PAPER	SCISSORS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
TOTALS			

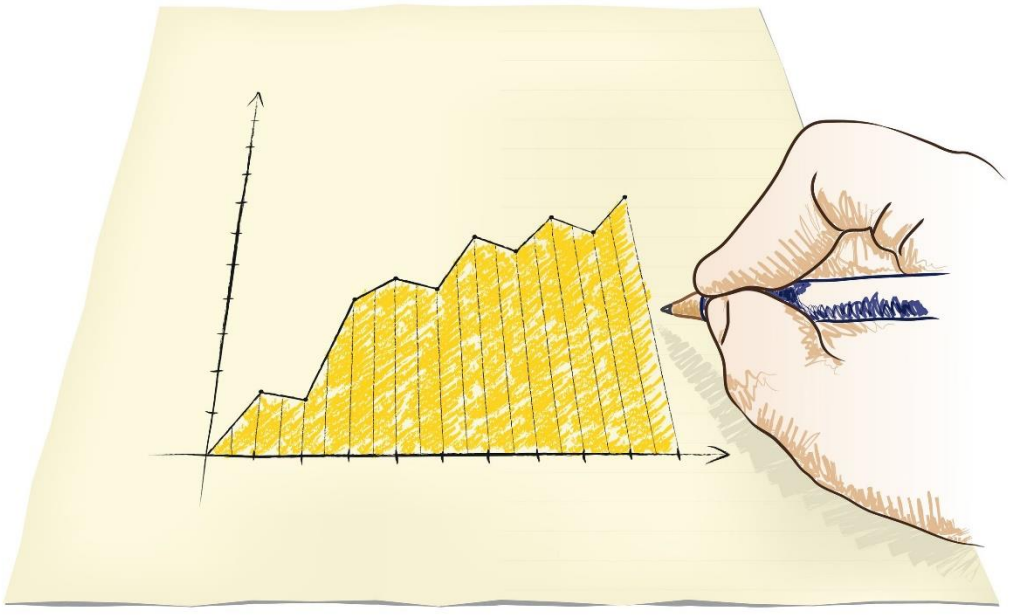
13. What do the results show?

16. If you were going on a group outing, choose where you would like to go. Collect and show the information. (Include rough work with your portfolio)

9				
8				
7				
6				
5				
4				
3				
2				
1				

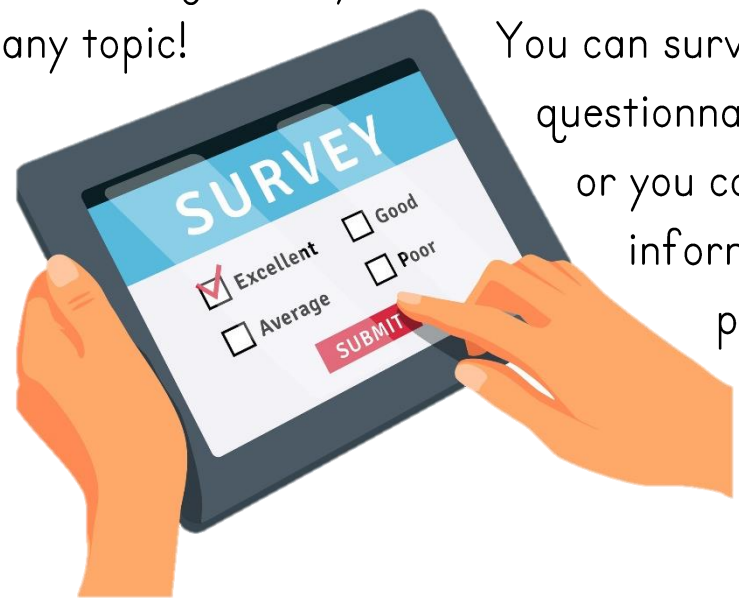
I. Write 4 sentences about the results.

Data Handling Project



TOPIC FOR SURVEY

Collecting information is an important way to help people make decisions about topics of interest. Surveys can help people decide what needs changing or improving, where money should be spent, what products to buy, what problems there might be, or lots of other questions that might need answering. Surveys can be used to answer any question about any topic!



You can survey people by using questionnaires, opinion polls, etc. or you could research information for things like pollution levels in a river, population of a town, etc.

As a group, or on your own, you will carry out an investigation, collect the data and describe your findings.
What do you want to find out?
Examples:

- For how many hours do people sleep at night?
- How many colours of each sweet are there in a bag?
- What are the recent sports results of a particular game, e.g. your favourite football team?
- What news channel do people most watch? Etc.

*See Appendix 3 for survey ideas.

Appendix 3: Ideas for your Survey

A. How safe do people feel? What have been their experience with crime and violence? Do they report crimes to the police?
B. How often do you use public services? Which ones do you use? (e.g. doctor, health clinic, hospital, post office, social welfare, etc.)
C. How do you spend your monthly budget?
D. How many books have you read this year?
E. What is your favourite movie? (e.g. choice of ten classic movies)
F. How would you improve your school/centre?
G. What do you use your phone for? (e.g. choose the function you most use – phoning, texting, using social media, playing games, etc.)
H. Do you think we need to stop using so much paper? (e.g. can have a list of what people use paper for)
I. What will you do if you witness bullying? (e.g. list of possible actions)
J. Should listening to music on personal devices be allowed during class?
K. Do students have enough access to technology to complete their work?
L. What kind of holiday is your favourite? (e.g. beach, history, culture, adventure, etc.)
M. What is your favourite fast food restaurant? (e.g. Chinese, chipper, pizza, etc.)
N. What is your favourite subject? (include a list)

Café Evaluation Survey Questionnaire (Think of a café you've been to)

Hello,

Please take a few minutes of your time to fill in the following survey.

How often do you visit cafés?

☐ Daily ☐ Several times a week ☐ Once a month ☐ Several times a month

☐ Once a year ☐ Several times a year ☐ Never

How would you rate as a customer the staff at our café?

Please mark: 1 - Excellent, 5 – Worst

Write the number: 1 2 3 4 5

A member of staff noticed me and served me immediately
The staff were helpful and pleasant
The staff got my order correct
The service I was provided was quick
The staff met all my needs quickly and to my satisfaction

To what extent do you agree with the following statements referring to your experience in our cafe?

Write the number: 1.I strongly agree 2.I agree 3.I disagree 4.I strongly disagree

The quality and speed of service was excellent
The food served was of a high quality and tasted good
The price list was affordable
The café environment was comfortable and relaxing
The café menu was adequate for my needs
An Internet connection was available

How would you rate our coffee from 0 to 5? _____

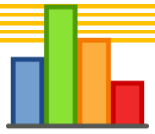
Would you recommend our café to a friend or colleague?

☐ Yes ☐ No

To which of the following age groups do you belong? Circle it.

Under 20 20 – 30 30 – 40 40 – 50 50 – 60 Over 60

How can we improve your experience at our café?

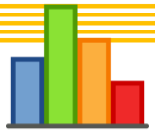


Mapping of Learning Outcomes

(DH1) Identify uses of data in everyday life, e.g. price comparisons, surveys Pages 8 to 15 (introduction to data, data in everyday life), Pages 16 to 18 (data in everyday life, e.g. temperature, opinion poll)

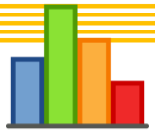
(DH2) Identify basic approaches to data collection, e.g. record sheets, tally system, audio-visual records Pages 19 to 23 (ways to collect data, e.g. questionnaire, interview, short survey, pair work survey, group discussion on data collection, etc.), Pages 24 to 26 (types of data, e.g. amount, frequency, size), Pages 27 to 35 (sorting data, e.g. how many, size, colour, phone numbers, diary, types of tools – bar graph and tally marks, fruit – pie graph, sorting houses and defining categories, etc.), Page 36 (research, watch videos and mindmap), Pages 91 to 100 (collecting information – letters of the alphabet in reading text, recording temperatures, throwing the dice, frequency table, rock / paper / scissors, group outing, etc.), Pages 101 to 109, Appendix 3 (carrying out survey), Appendix 4 (filling in survey record sheets)

(DH3) Interpret basic data of two criteria, e.g. more/less of one class than another, bigger/smaller etc. Pages 12 and 13 (weather symbols), Page 18 (temperatures), Page 28 (earthquakes), Page 29 (peppers – colours / numbers), Pages 40 to 41 (pictographs), Pages 42 to 44 (tally



marks), Pages 45 to 46 (bar graphs), Pages 47 to 48 (pie graphs), Page 49 (describing data – general), Pages 50 to 51 (interpreting data, e.g. favourite subjects, favourite movies), Page 52 (reading pictographs), Pages 52 to 54 (reading tally marks), Pages 55 to 59 (reading bar graphs), Pages 60 to 62 (reading pie graphs), Pages 63 to 70 (reading other graphs, e.g. line graph, diagram, life cycle, instructions, infographic, etc.), Page 99 , Teacher Note (memory activity – remembering data), Pages 101 to 109, Appendix 3 (carrying out survey)

(DH4) Construct basic representations to communicate data with two criteria, e.g. pictograms, bar charts, tally records Page 29 (peppers – colours / numbers), Page 30 (diary – construct table), Page 30 (construct table – colours / vegetables / fruit), Page 31 (construct table – T-shirts / colours), Page 32 (construct bar graph to sort tools), Page 33 (construct pie graph to sort fruit), Pages 74 to 75 (adding parts of a graph, e.g. title, numbers, etc.), Pages 76 to 85 (finishing graphs, e.g. shading, pictograph, key, tally marks, to-do list, line graph – plotting, key, etc.), Pages 86 to 90 (making graphs, e.g. totalling tally marks, creating a bar graph), Page 93 (constructing graph from data collection – letters of the alphabet), Page 94 (constructing line graph from data collection – temperatures), Page 95 (constructing graph with tally marks from data collection – dice throwing), Page 96



(constructing frequency table), Page 97 (constructing table with tally marks from data collection – pen experiment, constructing pie graph), Page 98 (constructing table from data collection – playing rock / paper / scissors), Page 100 (constructing graph from data collection – group outing), Pages 101 to 109, Appendix 3 (carrying out survey)

(DH5) Interpret basic representations, e.g. pictograms/bar-charts Page 15 (shopping prices), Page 17 (tea/coffee), Page 28 (write fact based on bar graph – earthquakes), Page 29 (write fact based on table – peppers), Page 31 (write fact based on table – T-shirts), Page 40 (write fact based on pictograph – milk), Page 43 (write facts based on tally marks – furniture), Page 50 (what does the data say), Page 54 (write facts based on tally marks – runners), Page 64 (draw conclusions by looking at graphs), Page 66 (write stages based on life cycle of a frog), Page 67 (write instructions based on images), Page 68 (write symptoms of alcoholism based on diagram), Page 69 (show correct posture based on infographic), Page 69 (write addition facts based on table), Page 82 (reading a table – car value), Page 88 (reading a table – competition), Page 98 (interpreting results from data collection – rock / paper / scissors), Page 100 (interpreting results from data collection – group outing), Pages 101 to 109, Appendix 3 (carrying out survey)