

PLAN. CONDUCT AND GRAPH INVESTIGATIONS

AC9M6ST03

POSING RESEARCH QUESTIONS

SUPER sort

Cut out the problem cards, then match each research question to the area of research it relates to. After matching the cards, tick the type of data display that would be appropriate for the topic and write a short explanation to justify your choice.

Area of research	Research question(s)	Data display
The amount of rubbish found in the playground at different times of the day		<input type="checkbox"/> line <input type="checkbox"/> column Why?
The percentage of single-use plastic found in the playground		<input type="checkbox"/> line <input type="checkbox"/> column <input type="checkbox"/> pie Why?
The amount of single-use plastic found in the playground over 6 months		<input type="checkbox"/> line <input type="checkbox"/> Why?

After lunch, how many pieces of rubbish were left on the oval and how many were in the gym? C

How many pieces of rubbish were left in the playground before school, at recess and at lunch today? B

How much single-use plastic was found in our school from May to October? A

Keep scrolling to see what's included!

WANT A FUN WAY TO TEACH STUDENTS HOW TO PLAN AND CONDUCT STATISTICAL INVESTIGATIONS?

♥ All six activities are aligned to the outcome: **(AC9M6ST03)**

♥ Tasks range in difficulty from easy to challenging!

♥ Activities are interactive, hands-on, and FUN!



AC9M6ST03

RESEARCH QUESTIONS & DATA DISPLAYS

MATHS match

PROBLEM CARDS

Genre	Count
Sci-fi	9
Comedy	11
Horror	8
Action	7
Drama	5

Service	Count
Netflix	15
Disney+	10
Binge	5
Prime Video	10

Name	Apples
Mia	3
Ruby	2
Chloe	2
Finn	1
Noah	4

WANT A FUN WAY TO TEACH STUDENTS HOW TO PLAN AND CONDUCT STATISTICAL INVESTIGATIONS?



NO planning required for outcome **AC9M6ST03**



No prep, just print and go!



Aligns perfectly to the **Year 6 Statistics & Probability Assessment Pack!**



AC9M6ST03

CONDUCTING INVESTIGATIONS

TRUE OR FALSE

Study the data display, then cut out the problem cards and sort them according to whether they are true or false. Before gluing them, arrange the cards in each column in alphabetical order.

How 6S travels to school

TRUE	FALSE

When collecting data on the surveying just a few student class will give an accurate picture how 6S travels to school

The first step in collecting this to create a table and use marks as students respond, drawing a graph

A line graph would have been more effective way to display data because it is continuous

A pie graph is an effective way to display this information because data is discrete and categorical

INCLUDES ALL THESE AND MORE!

AC9M6ST03

CONDUCTING INVESTIGATIONS

TRUE OR FALSE

→ PROBLEM CARDS

The first step in collecting this data is to draw a graph and fill it in as students respond

When collecting data on this topic, you need to survey every student in the class to accurately represent how 6S travels to school

To accurately collect data on this topic, you would ask each student: "What is your favourite way to travel to school each day?"

The first step to creating a line graph is to create marks as follows

When collecting data on this topic, you need to survey every student in the class to accurately represent how 6S travels to school

A line graph is used to display data that changes over time

To accurately collect data on this topic, you would ask each student: "How do you travel to school each day?"

A pie chart is used to display data that is divided into parts

To accurately collect data on this topic, you would ask each student: "How do you travel to school each day?"

A pie chart is used to display data that is divided into parts

AC9M6ST03

RESEARCH QUESTIONS & DATA DISPLAYS

maths MAZE

Match each data display to the research question it represents. In the maze, each answer will lead you to the next problem. To keep track of your answers, colour your way from start to finish, recording the letter sequence you followed in the table below.

START

A

What do you prefer, fruit or vegetables?

B

What was the last country you visited overseas?

C

How many siblings do you have?

D

Day	Croissants
Monday	10
Tuesday	15
Wednesday	20
Thursday	25
Friday	30

How many croissants did you bake this week?

E

What was your weight (in kilograms) each month this year?

F

How do you travel to school most days?

G

What is your favourite subject?

H

Do you have a sibling?

I

What is your class' favourite genre to read?

J

What was the monthly rainfall in your town (in mm)?

K

What was the average temperature in February?

FINISH

A				
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THE SYDNEY TEACHER

AC9M6ST03

POSING RESEARCH QUESTIONS

SUPER SORT

Should one-to-one devices be banned in schools?

How many hours should kids be allowed on screens?

How long do you spend watching videos on YouTube or similar platforms each day?

At what times of day do you use screens the most: morning, afternoon or night?

AC9M6ST03

RESEARCH QUESTIONS & DATA DISPLAYS

MATHS match

→ PROBLEM CARDS

1

Day	Bananas
Mon	2
Tue	3
Wed	2
Thu	3
Fri	4

What is your favourite takeaway food?

2

What was the last country you visited overseas?

3

How long do you spend watching videos on YouTube or similar platforms each day?

4

Hours	Students
0	2
1-5	3
6-10	2
10+	4

How many hours should kids be allowed on screens?

5

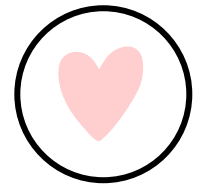
What is your class' favourite genre to read?

6

What do you prefer, fruit or vegetables?

CONTENTS

What's included in this pack?

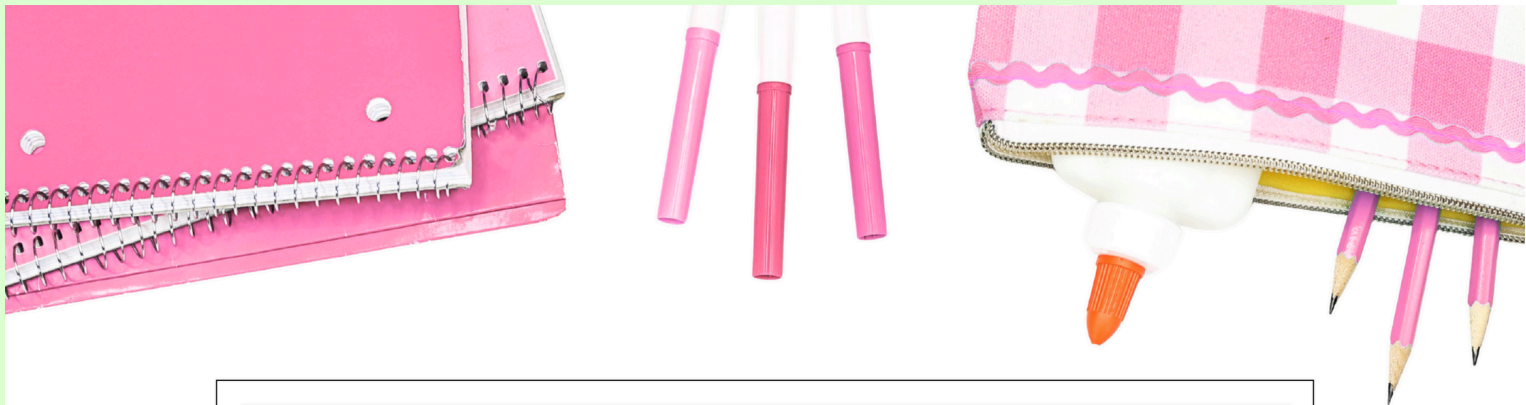


SIX engaging activities for the outcome **AC9M6ST03**:

- + True or False
- + Maths Match
- + Super Sort
- + Maths Maze
- + Would You Rather?
- + Thinker's Keys



Answer Key for teachers



AC9M6ST03

POSING & REFINING RESEARCH QUESTIONS


WOULD YOU rather...

ANSWERS When colour the box to show if you would rather option A or B behind each decision.

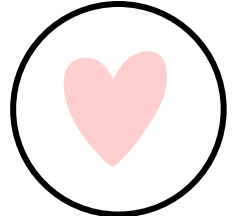
	OPTIONS	WHY?
A	Research how magpies and kookaburras build their nests differently in the local park	A – the topic is specific and observable because it is narrowed down to only two types of birds in a specific area
	OR	
B	Research which bird builds the best nest in Sydney	B – “best” is an opinion, so there would be no objective answer to find; the research area would also be too broad
	OR	
A	Survey which gaming consoles students use at home	Answers may vary depending on interest
	OR	
B	Survey how many students play on gaming consoles at home	Both are good research topics because they are interesting, specific, and countable
	OR	
A	Answer: Are there different coloured cars in our school parking lot?	A – it's a simple yes or no question that can be answered quickly even without data collection
	OR	
B		B – it is specific, focused, and

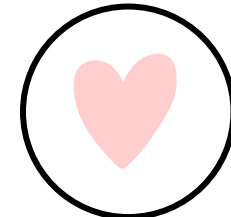
WOULD YOU RATHER...

HOW YOU CAN USE THIS RESOURCE

 Engage all students in exploring data together as a **whole-class activity**

 Assign different activities to groups based on skill level for **small group work**

 Reinforce statistical investigation skills for **independent practice or homework**

 Use as a **daily warm-up** to build routine, activate prior knowledge, and get students focused right away.

LOOKING FOR MORE?



Grab all the 30 interactive activities in **Year 6 Statistics & Probability Activity Bundle** and make planning a breeze. Cover every curriculum goal while keeping your students engaged, motivated, and learning all year long!

YEAR 6

STATISTICS & PROBABILITY ACTIVITY BUNDLE

THE SYDNEY TEACHER

TRUE	FALSE
In this chance experiment, you have a 2 in 3 chance of picking a white marble.	In this chance experiment, you have a 2 in 3 chance of picking a white marble.
In this chance experiment, you have a 2 in 3 chance of picking a white marble.	In this chance experiment, both colours have the same chance of being picked.
In this chance experiment, you are likely to pick a white marble.	In this chance experiment, both colours have the same chance of being picked.

30 ACTIVITIES