

# Statistical Enquiry Cycle



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# BRAVO



Nice Work!



# AWW YEAHH

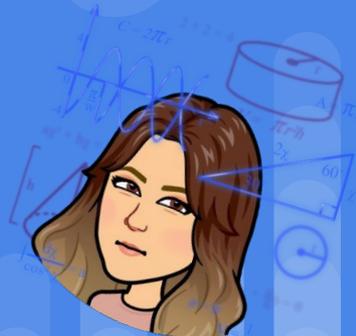


Use this to help you with your  
Statistical Investigation Process  
Kea Whanau Teacher can guide you  
through the process

# NICE



# SUPER



# Setting Questions with Mrs McCarthy

Decide on a Question to answer.  
Be careful with this question as it needs to be worded well to be able to collect data.

Examples

- What is my family's favourite ice cream flavour?
- What colour cars pass on my road today?
- Which Maggi packets are in the cupboard?

THINKING...



## Pose a Question

What is the question we want to answer?

How will we find out the answer to this question?

What data do we need to collect?

Who should we collect it from?



# Mrs Kanon reminds you to Plan out your investigation



Answer the questions to the right. This will help you plan your steps.

**HOW** : Create a list, a table or a tally chart

**WHAT**: Make sure you have clear categories and 'other' for people to choose if they don't like the categories you have picked.

**RECORD**: Decide what graph suits the data.



## Plan

How will we collect the data?

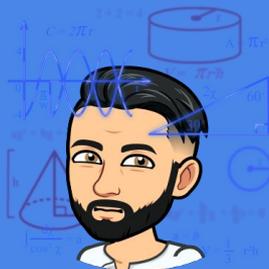
What data will we collect?

How will we record the data?



# Collect the Data, the Mr Wiz way

Data should be organised into a table or tally chart.  
Make sure it is clear and easy to read.



## Tally Chart

A tally chart is used for recording amounts of items. One tally mark shows that there is one item; four tally marks with a diagonal line through shows that there are five items.

Favourite Animal	Number of Children
Dog	
Cat	
Snake	
Bear	
Horse	
Goose	

Making a tally chart is faster than writing out words or numbers.



## Data

Who will record the data?

Have you used a table to record your data?  
It is the most common tool to record data.

Is the data you have collected clear and easy to read?

Is your data organised?

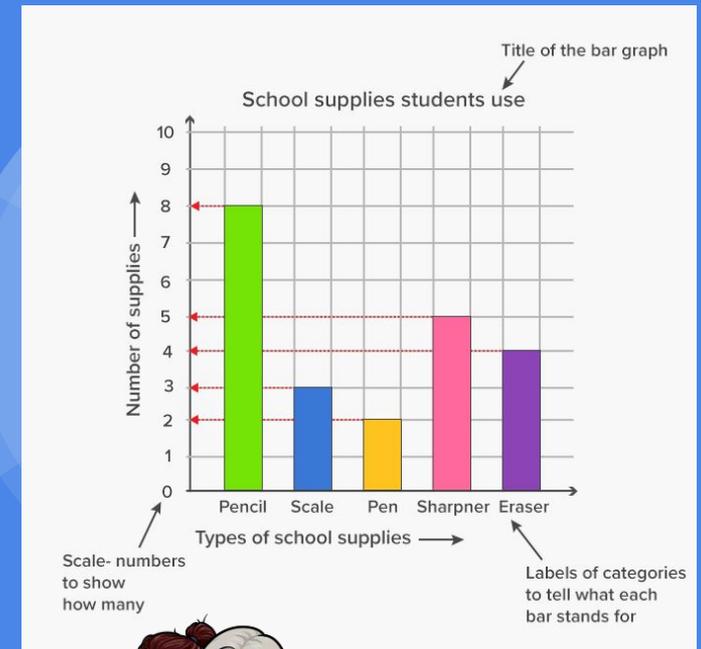
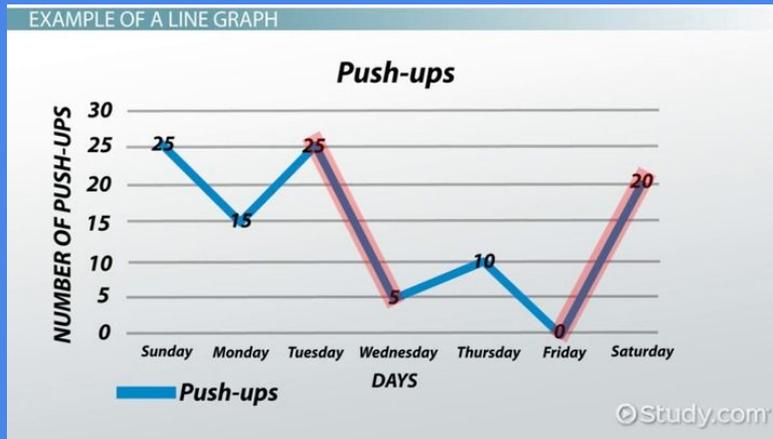
I'm going to ask all of my classmates and record their answers on a tally chart.



●	
●	
●	
●	
●	
●	
●	

# Miss W's & Mrs Frasers - 7 Ticks for Graphing Success

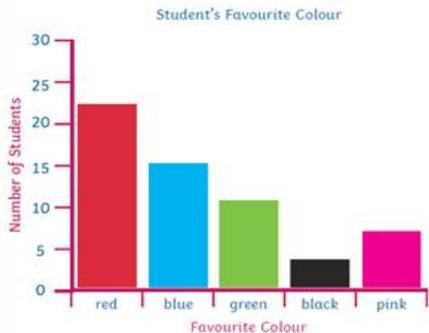
1. Title the Graph (✓)
2. Label x and y axis (✓✓)
3. X and y axis have regularly intervals (✓✓)
4. Data is clear and Easy to read (✓)
5. The intersection point of the 2 lines starts at 0 (✓)



## Bar Graph

A bar graph clearly displays results and information.

The number of items is shown on the y axis, which is vertical.



Types of items are shown on the x axis, which is horizontal.

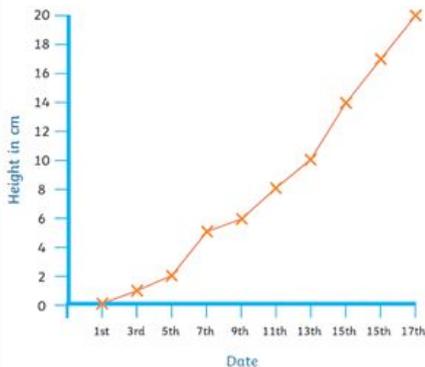
## Pictogram or Picture Graph

A pictogram uses pictures to show data. It is quicker and easier to read the data than in a table or tally chart.

Favourite Animal	Number of Children
Dog	
Cat	
Snake	
Bear	
Horse	
Goose	

## Line Graph

A line graph uses points connected by lines to show how something changes in value.



## Pie Chart

A pie chart is a circular chart divided into sections. Each sector shows the relative size of each value.



# How to Analyse ideas with Miss Delany

Use statements to explain what you see in your graph.  
Examples

- I notice there are 10 people whose favourite colour is green.
- I can see that overall, generally people's height in centimetres gets taller as they grow older.
- Out of all of the cars on my street, the most common make is Toyota.
- In my family 2 people like Orange Chocolate Chip ice cream, 1 likes Chocolate ice cream, and 1 likes Mango Sorbet.



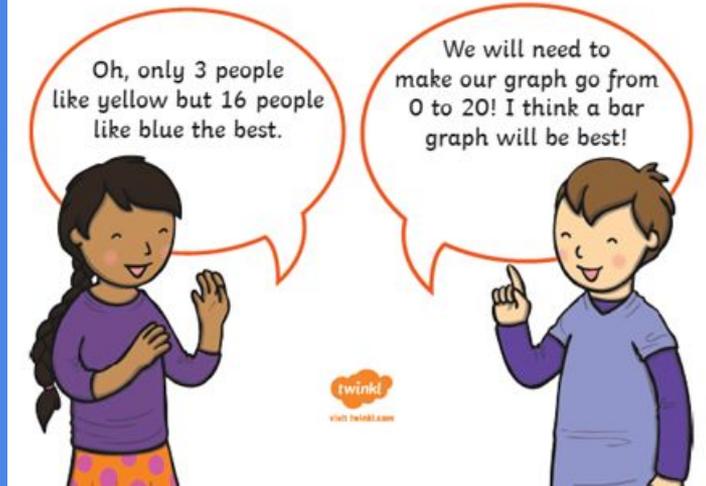
## Analysis

When you look at your data, can you see the biggest and smallest measurement? Use these numbers to help you choose the scale for your graph.

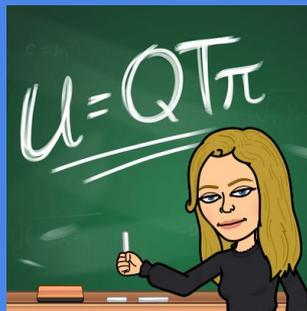
What graph will you use to display your data?

Can you create more graphs, using the same data, that displays the data better?

What graph will you use to display your data?



# Writing a Conclusion explained by Miss Day



This statement should answer the question you posed.

## Examples

- ★ In conclusion Orange Chocolate Chip is the most popular ice cream flavour in my family.
- ★ There are the same number of blue cars as silver cars on my street today.
- ★ Apples are the most common fruit in lunch boxes.
- ★ More people have dogs as pets than cats.



## Conclusion

Have you answered your original question?

What have you noticed in your data displays?

What information can you share about your enquiry?

Who do you think would be interested in your information? Why?

Has your enquiry made you think of other questions you would like to answer?

