



Key Vocabulary	Definition
	If you see * next to a word, there is a diagram to explain it
bar chart *	visual diagram used to represent statistical information
Pictogram *	visual diagram used to represent statistical information
frequency table *	a table used in statistics that organises data as an ordered list of scores and their frequency
tally chart *	A record of items using lines to represent each item
discrete data	data that can be counted and has a finite number of possible values (e.g. days of the week)
continuous data	has an infinite number of possible values within a selected range e.g. temperature range
time graph *	A graph to show how data changes over time
sum	The result when two or more numbers are added together
difference	how much a number is bigger or smaller than another
comparison	What is the same or different about a number of things
interpret	To make sense of something

### Discrete and Continuous Data

Data that is counted in whole numbers is discrete. In **discrete data**, values between whole numbers cannot be counted.

Data that is measured and therefore can take on infinite values is continuous. In **continuous data**, values between whole numbers can be counted.

### Frequency Tables

Tally marks are used to help count things. Each vertical line represents one unit. The fifth tally mark goes down across the first four to make it easier to count.

The frequency column is completed after all the data has been collected.

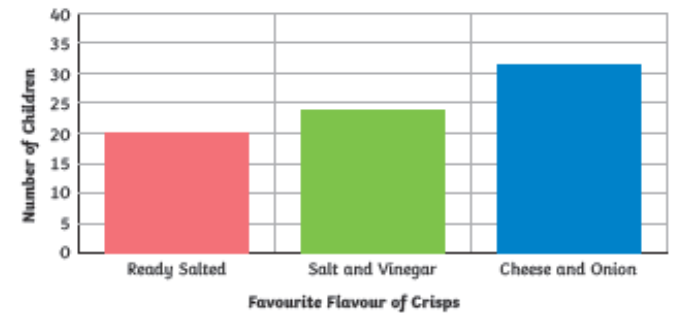
Eye Colour	Tally	Frequency
brown		6
blue		8
green		3
grey		4
hazel		5

### Bar Charts

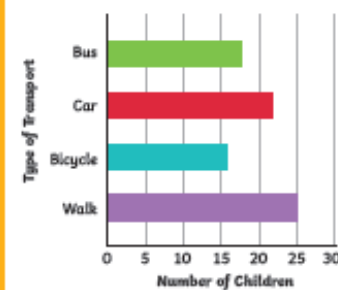
A bar chart has a horizontal axis and a vertical axis. Bars are used to show the data of each category. There must be a gap between each bar.

The scale of the bar chart is based on the range of data.

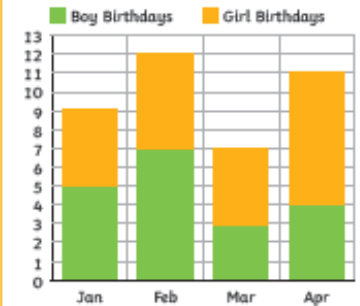
The scale on this bar chart counts in fives.



The bars are horizontal on this bar chart.

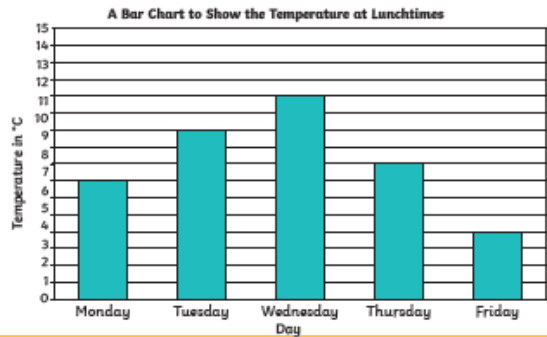


Two sets of data are shown on this stacked bar chart.

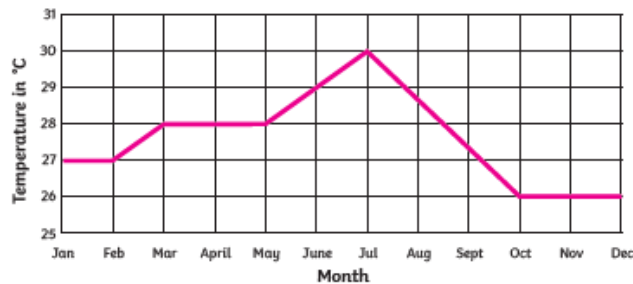


### Time Graphs

Time graphs show how data changes over time.



A Line Graph to Show the Average Monthly Temperature in the Borneo Rainforest



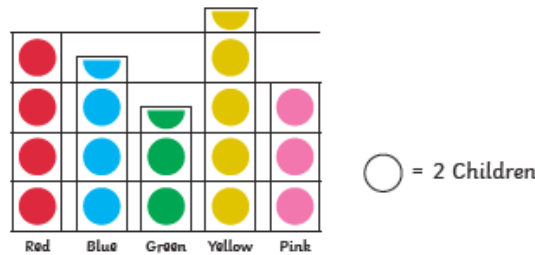
### Pictograms

Pictograms use symbols or pictures to represent data.

This pictogram uses one symbol to represent two children.

Using this key, we can see that seven children prefer the colour blue.

**Class 10's Favourite Colours**

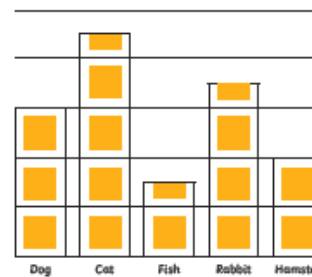


○ = 2 Children

**Class 10's Pets**

This pictogram uses one picture to represent four children. Using this key, we can see that six children have a pet fish.

■ = 4 Children



### Real Life

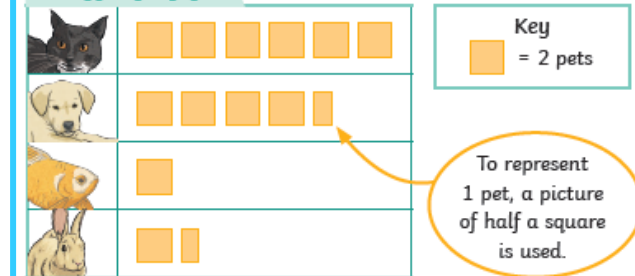
- **Temperature:** Reading temperatures for weather, people, food
- **Bus / train timetables:** When you go to secondary school
- **Research:** Choices of where to eat with friends - who wants Nandos / McDonalds / Pizza Express
- **In hospitals:** Doctors and nurses use charts all the time (remember when the midwife who visited showed us her blood pressure charts)

### Prior Knowledge

#### Pictograms

Pictograms use pictures or symbols to represent data. The key shows what each symbol represents. This pictogram uses 1 symbol to represent 2 pets.

**Class A's Pets**



### Zooming out...

- Statistics has its origin in **census** counts (count of all people in a country).  
Think about where Mary and Joseph were going when Jesus was born...  
What were they doing?
- Remember when we did our **AJS Census** last year? You answered questions about yourselves and then analysed the data in class.
- The **Han Dynasty** (China) and **Roman Empire** were first to collect and analyse data