

Types of Graphs or Charts



This Powerpoint offers a brief description of different types of charts/graphs.

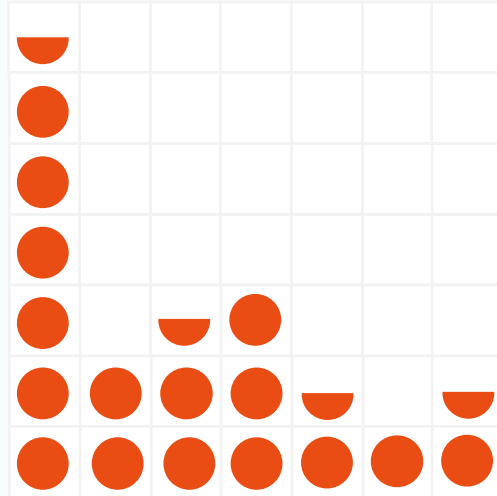
Although you won't be answering questions on all of these charts/graphs this week it's still important you take a look at each slide.

Make sure you are particularly aware of the difference between discrete and continuous data.

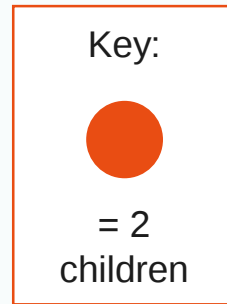
For today's work you will be looking at line graphs.

Pictograms

A Pictogram to Show How the Children in KS2 Travel to School



Walk Bicycle Car Bus Tram Train Other
Types of Transport

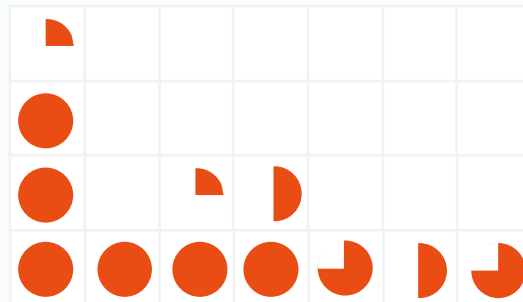


A pictogram uses pictures or symbols to represent **discrete data**.

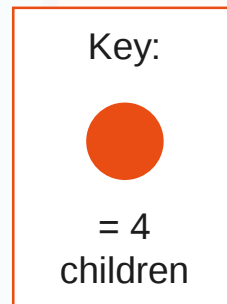
A key shows the value represented by one picture or symbol.

It is important to identify the value of the whole picture or symbol in a pictogram, as part symbols are often used to show different values.

A Pictogram to Show How the Children in KS2 Travel to School



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In both of these pictograms, the data is the same but the value of the symbol is different.

Bar Charts

Data that is counted and has no in-between value is called **discrete data**. Discrete data is usually collected in a frequency table and then presented as a bar chart.

A bar chart has a **horizontal** axis and a **vertical** axis.

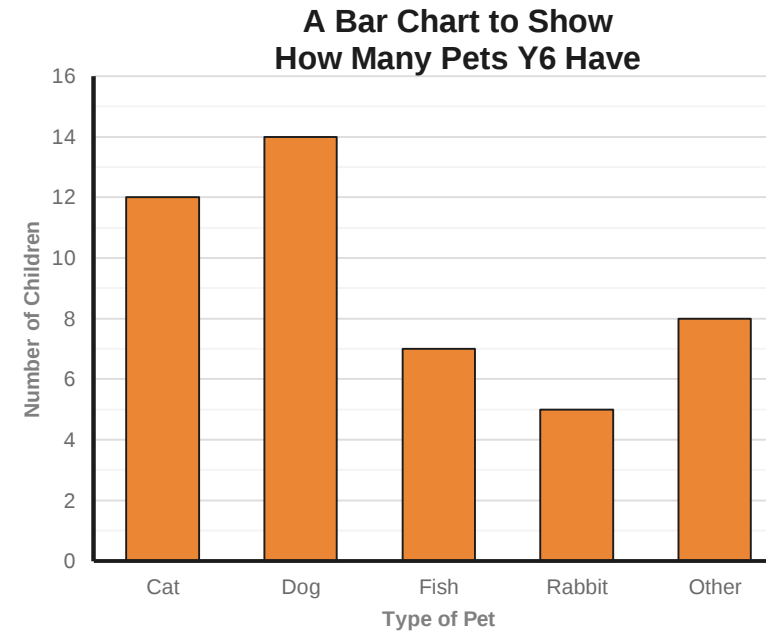
- A bar chart must always have a **title** explaining what it shows.
- Bars must be carefully drawn to show the data.
- There must be a **gap** between each bar.
- Each bar must be the **same width**.

A **number line** is marked on the **vertical** axis. The scale of this number line is chosen based on the data range.

The **data categories** are organised on the **horizontal** axis.

Each axis must have a **label** explaining what it shows.

Pet	Number of Children
Cat	12
Dog	14
Fish	7
Rabbit	5
Other	8

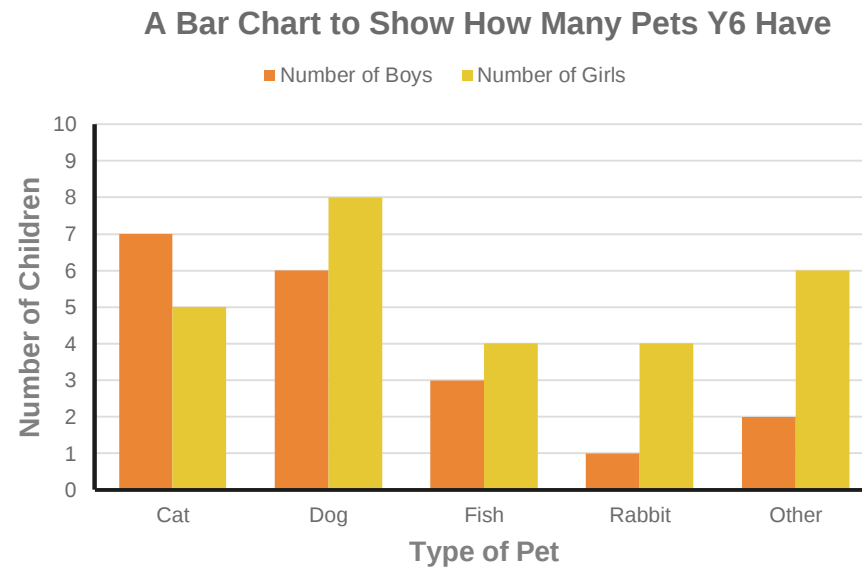


Bar Charts

Discrete data in each category can also be represented in subcategories:

Pet	Number of Boys	Number of Girls
Cat	7	5
Dog	6	8
Fish	3	4
Rabbit	1	4
Other	2	6

We can draw a grouped bar chart to show this data. In this bar chart, each category has more than one bar. A key is used to identify the subcategories of the data.



Line Graphs

Line graphs are used to show changes to a measurement over time. They show **continuous data**.

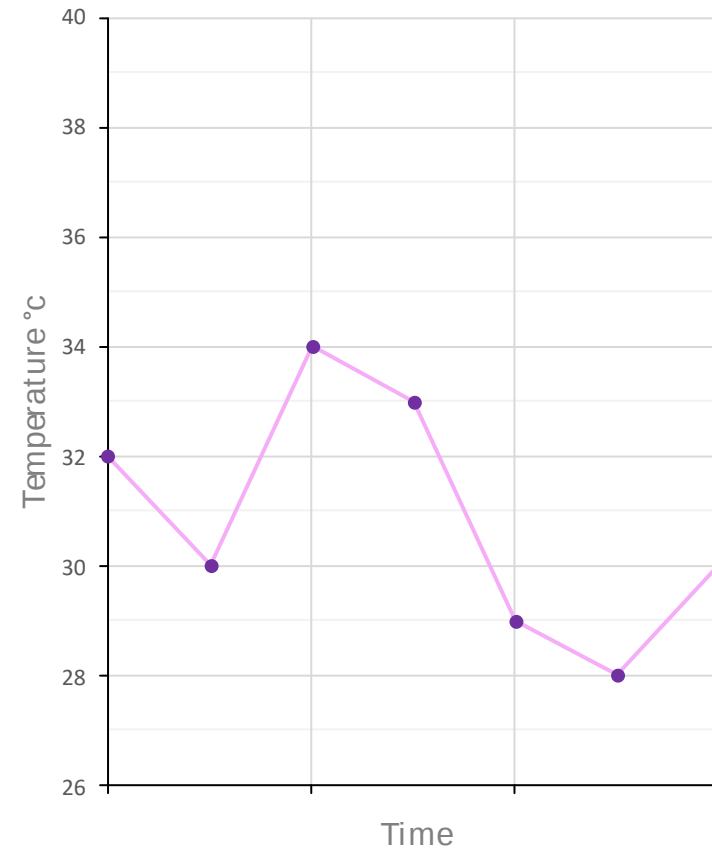
The data being measured is shown on the **vertical** axis.

The time the data is being measured over is shown on the **horizontal** axis.

Data is plotted on to a line graph in the same way as a coordinate grid. These data plots are then joined with straight lines.

We can use the line of the graph to describe general trends in the change of the measurement over time, or to find precise measurements at a given time.

A Line Graph to Show the Temperature of the Classroom



Line Graphs

A general trend for this line graph would be that, although the temperature spikes up a couple of times, generally it drops over time.

Take a brief look at this video to help you with reading line graphs more precisely.

<https://www.youtube.com/watch?v=x9dfsti25HY>

A Line Graph to Show the Temperature of the Classroom

