STATISTICS

KNOWLEDGE ORGANISER

Love of Learning

Overview

In statistics, we learn to:

-Make Tally Charts   -Draw Pictograms (2, 5, 10)

-Interpret Pictograms (2, 5, 10)   -Pictograms

-Bar Charts   -Tables

This learning is important because...

...it helps us to read and understand information. We can make use of information to answer important questions. It also helps us to think critically to solve problems.

Tally Charts and Tables

-<u>Tally marks</u> are a useful way of tracking scores. Tally marks look like those shown on the right. The first four marks are straight vertical lines. The fifth line goes across diagonally, like a gate.

-<u>Tally charts</u> are one way of collecting data with tally marks.

-The tally chart on the right shows the favourite fruit of children in a class.

Fruit		Tally	
apple		ⵂ I	6
strawberry		ⵂ II	7
banana		ⵂ III	8
orange		IIII	4
grapes		ⵂ	5

-<u>Tables</u> need to have clear titles and headings so that we can understand the data.

-The table on the right shows the different medals won by each country. Using this table, we can see that Kenya won the most gold medals, but Japan won the most medals in total.

Table showing the number of medals won

Country	Gold	Silver	Bronze	Total
Brazil	9	20	9	38
Egypt	7	16	10	33
Japan	8	16	19	43
Kenya	11	3	16	30
Norway	8	14	14	36
Thailand	6	23	2	31

Pictograms

Pictograms use pictures or symbols to show data.

The key shows us how much each symbol represents.

KEY

☺ = 1 child

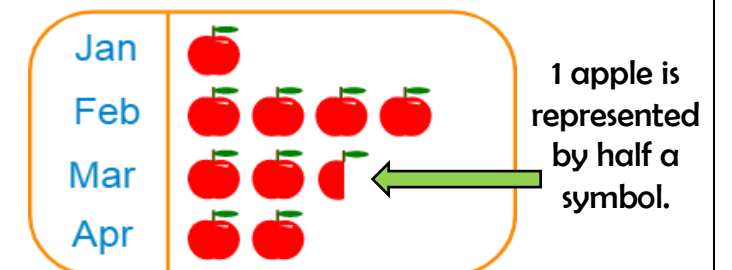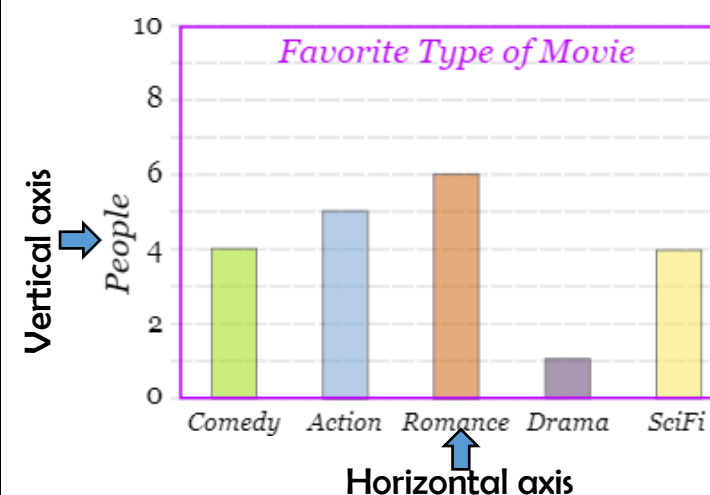| Fruit	Favorite Fruit
apple	☺ ☺ ☺ ☺ ☺
banana	☺ ☺ ☺ ☺ ☺
strawberry	☺ ☺ ☺
pear	☺ ☺
grapes	☺ ☺ ☺

In this pictogram, one symbol represents 2 apples.

KEY

🍎 = 2 apples

The key helps to show us how many apples were sold. e.g. 8 apples were sold in February.

Apples Sold

Jan 🍎
Feb 🍎🍎🍎🍎
Mar 🍎🍎🍎
Apr 🍎🍎🍎

1 apple is represented by half a symbol.

Bar Charts

-Bar charts show us the data in each category by using rectangular bars.

Favorite Type of Movie

Vertical axis / People

Comedy Action Romance Drama SciFi

Horizontal axis

-Remember that there should be a space between each bar.

-The scale for each bar chart can change depending on the range of data.

-For example, if 50 people had been asked about their favourite type of movie (instead of 20) a scale with intervals of 5 in the vertical axis (instead of 2) may have been more appropriate.

Key Vocabulary

Data   Tally Chart   Bar Chart   Table   Symbol   Key   Represent   Horizontal Axis   Vertical Axis   Scale   Intervals