## DESCRIBING CHARTS AND GRAPHS

Language used to describe charts and graphs. Graphs or charts help people understand data quickly. You can use them to make a comparison or show a trend.

TYPES OF CHART

| PIE CHART: used to show percentages | BAR CHART: is used to compare different sets of information | LINE GRAPH: is most useful for showing trends |
| :---: | :---: | :---: |
|  |  |  |

What is a trend? A trend is a general tendency or direction. We can have an upward/downward trend

## Vocabulary for describing graphs GOING UP

- Verbs rise, increase, grow, go up, improve, jump, surge, shoot up, soar, rocket
- Nouns a rise, an increase, growth, an upward/rising/increasing trend, an improvement, a jump, a surge


## GOING DOWN

- Verbs fall, decrease, drop, decline, go down, slump, plummet
- Nouns a fall, a decrease, a decline, a downward/falling/decreasing trend, a slump


## NO CHANGE

- Verbs remain stable/constant, stay at the same level, stabilize


## FREQUENT CHANGE Up and Down

- Verb fluctuate, zig-zagged, flutter
- Noun - fluctuation, zig-zag


## AT THE TOP

- Verbs reach a peak, peak., reach its/their highest point


## AT THE BOTTOM

- Verbs reach/hit a low (point), hit/reach its/their lowest point


## LOW POINTS

bottomed out, reached a low

## CHANGE

## Adjectives:

Big changes: dramatic, considerable, sharp, significant, rapid, sudden

Small changes: moderate, slight, steady, gradual, slow, gentle

## Adverbs:

Big changes: dramatically, considerably, sharply, significantly, rapidly, suddenly

## Useful phrases when describing

$\checkmark \quad$ The slices of the pie chart compare the ...
$\checkmark$ The chart is divided into ... parts.
$\checkmark$ It highlights ...
$\checkmark \quad$... has the largest (number of) ...
$\checkmark \quad .$. has the second largest (number of) ...
$\checkmark \quad .$. is as big as ...
$\checkmark \quad$... is twice as big as ...
$\checkmark \quad$... is bigger than ...
$\checkmark$ more than ... per cent ...
$\checkmark$ only one third ...

Small changes: moderately, slightly, steadily, gradually, slowly, gently

## Prepositions:

a rise from $£ 725$ to $£ 825$
to increase by $2.1 \%$
an increase of 2.1 \% in the crime rate
$\checkmark$ less than half ...
$\checkmark$ The number ... increases/goes up/grows by ...
$\checkmark \quad$ The number ... decreases/goes down/sinks by ...
$\checkmark$ The number ... does not change/remains stable
$\checkmark \quad$ I was really surprised/shocked by the ...
$\checkmark$ So we can say ...

## Exercise: Fill in the gaps: The total property crime rate and

 B\&E rate between 2000 and 2007

Unit of count: offences per 100000 population

This report examines the changes in the total property crime rate and the break and enter rate between 2000 and 2007.

In 2000 the total property crime rate was 2500 offences per 100000 population. Then the rate 1) rose (sharply/sharp) and reached 3800 in 2001. After a 2) (moderate/moderately )fall in 2002, the rate started to 3) (increase/decrease) again and reached a 4) (peak/top) in 2003. However, after 5) (stabilizing/fluctuating ) for some months, the total property crime rate dropped 6) (considerably/considerable) throughout 2004 and the beginning of 2005.
The rate stayed at about 2400 offences from mid-2005 7) $\square$ (to/until) mid2006 before 8) (decreasing/decrease) again.

In 2000 the break and enter rate was about 760 offences per 100000 population. 9) From(From/since) 2000 to 2003, there was a steady 10) (upward/downward)trend in the B rate. The rate 11) (reached/arrived) its highest point in 2003 and then 12) (showed/fell) a significant downward trend until mid-2005. After being stable for a few months, the rate continued to fall 13 (slightly/slight), dropping to around 780 in 2007.

The total property crime rate fluctuated from 2000 to 2003, whereas the break and enter rate showed a general upward trend. Both rates peaked in 2003, fell significantly until mid-2005, stabilized for some months and 14) (fell/grew) slightly during 2006 and 2007.

## GRAPHS - PART 2

## Useful introductory expressions:

The graph shows / indicates / depicts / illustrates
From the graph it is clear
It can be seen from the graph
As can be seen from the graph,
As is shown / illustrated by the graph,
Example: The graph shows the percentage of children using supplements in a place over a year.

## Useful time expressions:

over the next... / for the following... (for the following two months... over the next six months...)
from ... to / between ... and (from June to August... between June and August...)
during (during the first three months...)

## Warning!

Per cent is the word form of the symbol \%. We can write $\mathbf{1 0 \%}$ or $\mathbf{1 0}$ per cent. Percentage is the noun form: The percentage of children using supplements.
And Not The percent of children

## Note!

You can use a combination of adjective + noun, or verb + adverb, to avoid repeating the same phrase.

Example: There was a sharp decrease in the numbers. The numbers decreased sharply.

## Exercise: Language for graphs

This exercise focuses on some basic language, which you need to describe graphs. Look at the graph below. Following the graph, there are 25 statements about the data.

remain (-ed, -ed)
unchanged, steady, stable, constant, plateau, fixed/static
From January to March the percentage of children using supplements remained fairly static at approximately $10 \%$.
The percentage of children taking dietary supplements was relatively stable during the first two months of the year.
During the first two months, supplement use remained fairly unchanged.
fall (fell, fallen), decrease (-ed, -ed), drop (dropped, dropped), plunge (-ed, -ed), decline (-ed, -ed) slight (slightly), steady (steadily), gradual (gradually), gentle (gently), slow (slowly)
downward trend

It then fell gradually in March.
There was a slight decrease in the use of dietary supplements in March.
The graph shows a slight decrease in March.
Supplement use experienced a steady decrease in March.
Supplement use decreased slightly in March.
fluctuate (-ed, -ed)
wildly

It went up and down widely over the next two months.
It fluctuated for the following two months.

```
rise (rose, risen), grow (grew, grown), climb (-ed, -ed), shoot up (shot up, shot up)
```

dramatic (dramatically), sharp (sharply), significant (significantly), rapid (rapidly)
upward trend

There was a significant increase in the percentage of children taking dietary supplements between June and August.
The period between June and August saw a dramatic growth in the use of dietary supplements.
Between June and August, the percentage of children taking dietary supplements shot up dramatically.
The greatest rise was from June to August when it rose by $22 \%$ for two consecutive months from June to August.
peak (-ed, -ed), reach (-ed, -ed)

The percentage of children taking dietary supplements was at its highest level in April.
Supplement use peaked at close to $25 \%$ in April.
It reached a peak of $25 \%$ in April.
fall (fell, fallen), decrease (-ed, -ed), drop (-ed, -ed)
dramatic (dramatically), sharp (sharply), significant (significantly), rapid (rapidly)

Between August and October, this figure dropped dramatically to $11 \%$.
From August to October, there was a drop of $14 \%$ in the percentage of children taking dietary supplements.
Between August and October, There was a considerable fall in the percentage of children using supplements.
This was followed by a sharp drop of $14 \%$ over the next two months.
Supplement use experienced a dramatic fall between August and October.
fall (fell, fallen), decrease (-ed, -ed), drop (dropped, dropped), plunge (-ed, -ed), decline (-ed, -ed), reach (-ed, -ed) its lowest point
slight (slightly), steady (steadily), gradual (gradually), gentle (gently), slow (slowly)
downward trend

Between October and December, the decrease in the use of dietary supplements was at a much slower pace than in the previous two months.
Supplement use continued to fall steadily over the next two months until it reached its lowest point in December.
It fell to a low of only $5 \%$ in December.

## Exercise: Population growth in Canada



This graph shows the growth of the population in Canada from 1978 to 2009. It is taken from the website about Statistics in Canada.

There are three graphs in the chart. The green graph shows the total growth of the population, the black one deas with the migrated people in Canada and the blue graph shows the natural increase of the population. In 1988/89, there was an enormous growth. In the following years, the total growth went down to about 250,000 in 1998/99. From that time on the Canadian population has been gradually growing again although the natural increase slows down. So, we can say that the growth of the population in Canada is based on migration.

## Now is your turn! With your partner describe the following graphs



## Exercise: match the graphs to the correct definition by using the numbers on each graph:



Sales bottomed out in May.
Sales levelled off from July.
Sales rose steadily over the year.
Sales peaked in June.
Sales remained the same.
Sales increased sharply from June.
Sales rose gradually through the year. $\square$
Sales fell steadily through over the year.

