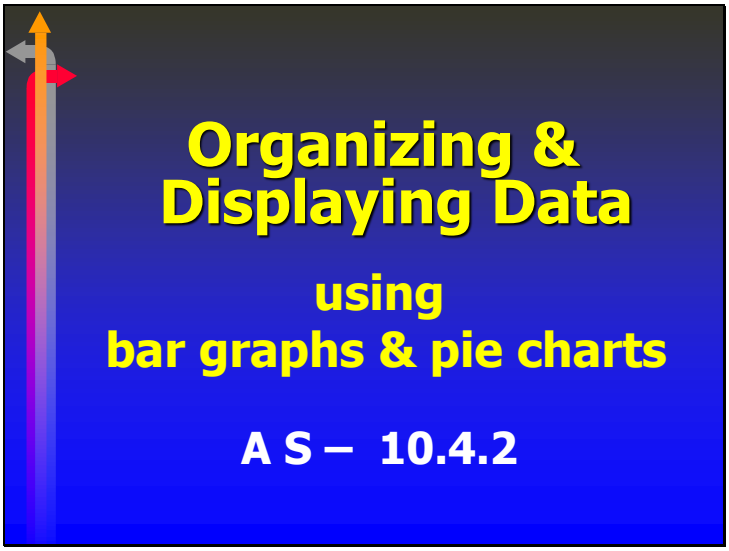
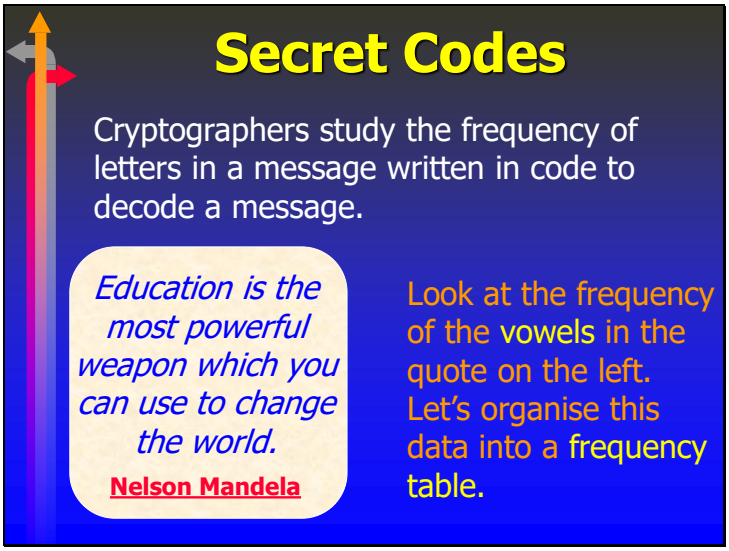
Slide 1


Organizing &
Displaying Data
using
bar graphs & pie charts
A S – 10.4.2

Slide 2


Secret Codes
Cryptographers study the frequency of letters in a message written in code to decode a message.
Education is the most powerful weapon which you can use to change the world.
Nelson Mandela
Look at the frequency of the vowels in the quote on the left. Let's organise this data into a frequency table.

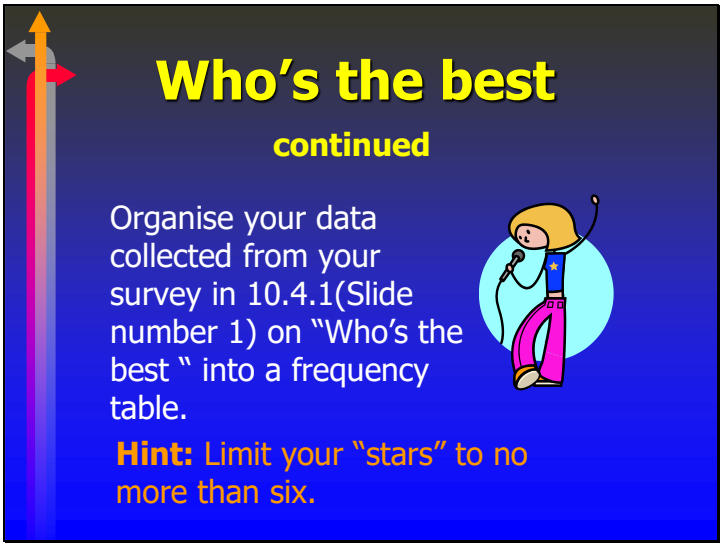
Slide 3

Organising Data

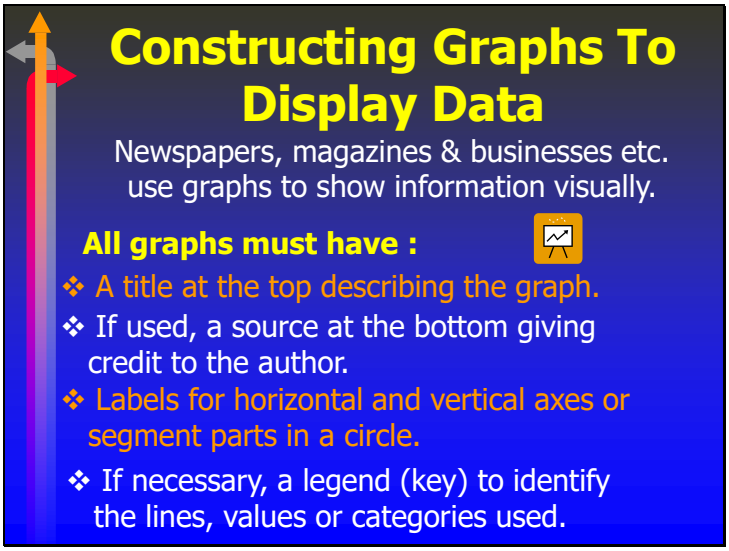
- Count the vowels.
- Make a tally mark for each vowel.
- Add the tally marks to get the frequency.

Letter	Tally	Frequency
a	||||	4
e	~~||||~~ ||	7
i	|||	3
o	~~||||~~ ||	7
u	||||	4

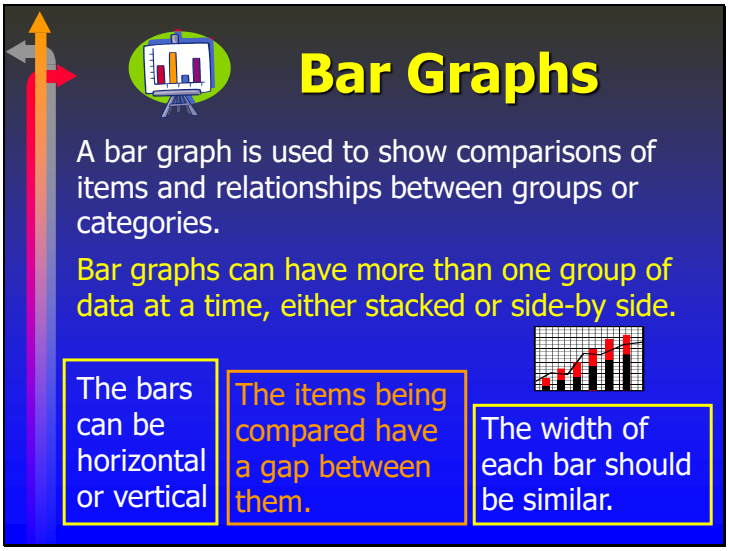
Slide 4


Who's the best
continued
Organise your data collected from your survey in 10.4.1(Slide number 1) on "Who's the best " into a frequency table.
Hint: Limit your "stars" to no more than six.

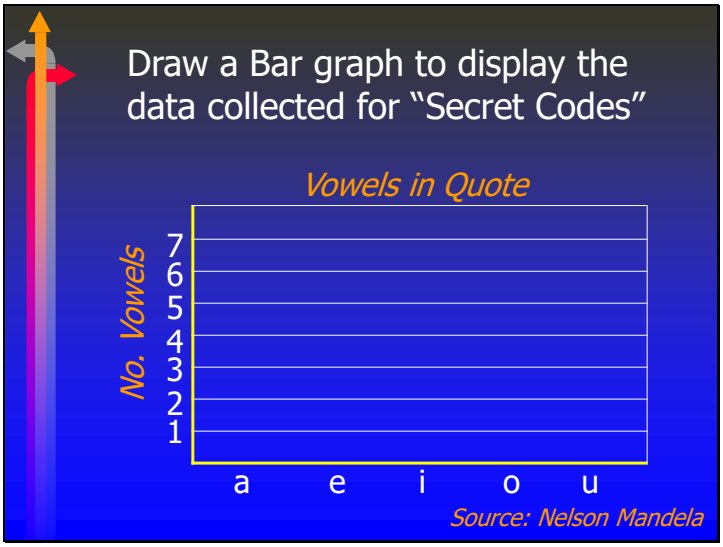
Slide 5


Constructing Graphs To Display Data
Newspapers, magazines & businesses etc. use graphs to show information visually.
All graphs must have :
❖ A title at the top describing the graph.
❖ If used, a source at the bottom giving credit to the author.
❖ Labels for horizontal and vertical axes or segment parts in a circle.
❖ If necessary, a legend (key) to identify the lines, values or categories used.

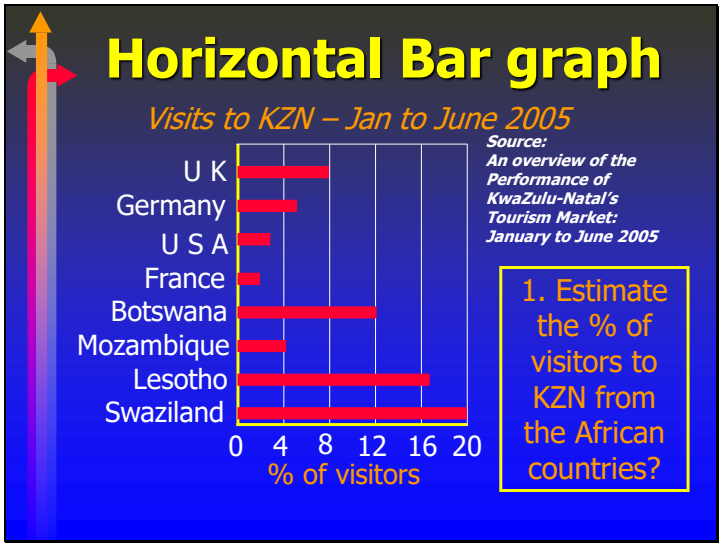
Slide 6


Bar Graphs
A bar graph is used to show comparisons of items and relationships between groups or categories.
Bar graphs can have more than one group of data at a time, either stacked or side-by side.
The bars can be horizontal or vertical
The items being compared have a gap between them.
The width of each bar should be similar.

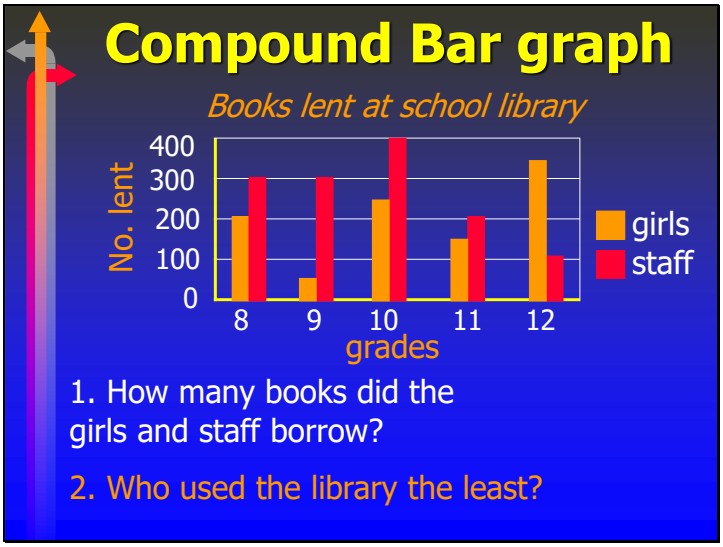
Slide 7


Draw a Bar graph to display the data collected for "Secret Codes"
Vowels in Quote
No. Vowels
7
6
5
4
3
2
1
a
e
i
o
u
Source: Nelson Mandela

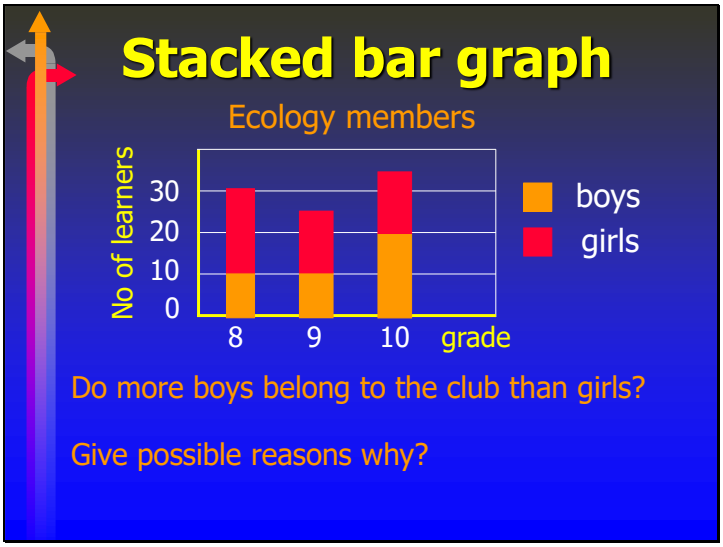
Slide 8


Horizontal Bar graph
Visits to KZN – Jan to June 2005
U K
Germany
U S A
France
Botswana
Mozambique
Lesotho
Swaziland
0 4 8 12 16 20
% of visitors
Source:
An overview of the Performance of KwaZulu-Natal's Tourism Market: January to June 2005
1. Estimate the % of visitors to KZN from the African countries?

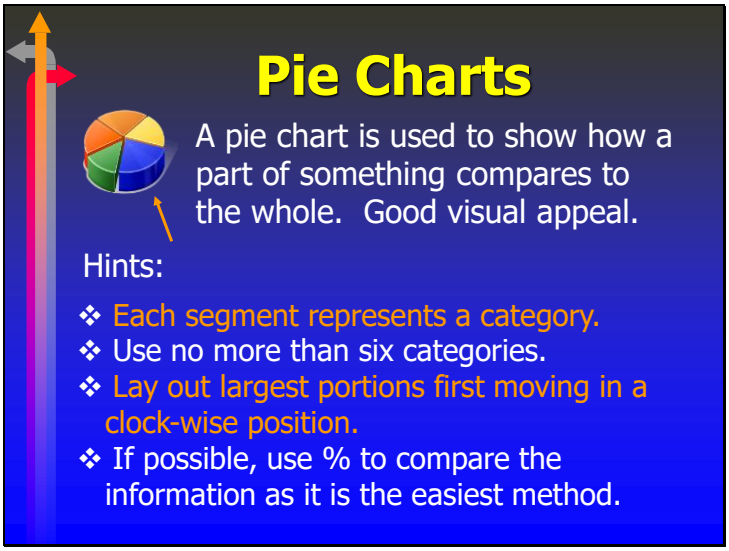
Slide 9


Compound Bar graph
Books lent at school library
No. lent
400
300
200
100
0
8
9
10
11
12
grades
girls
staff
1. How many books did the girls and staff borrow?
2. Who used the library the least?

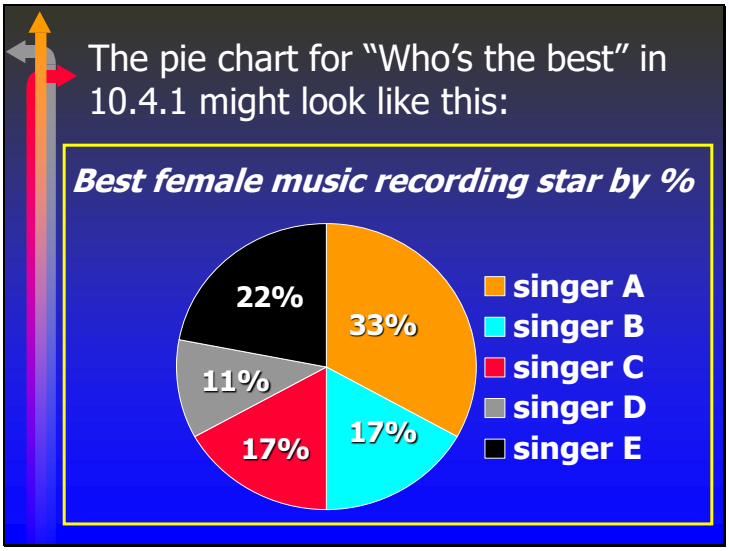
Slide 10


Stacked bar graph
Ecology members
No of learners
30
20
10
0
8
9
10
grade
boys
girls
Do more boys belong to the club than girls?
Give possible reasons why?

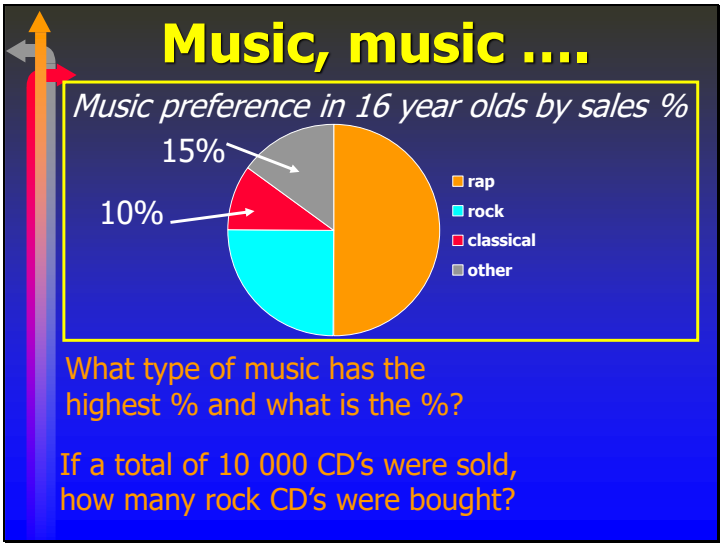
Slide 11


Pie Charts
A pie chart is used to show how a part of something compares to the whole. Good visual appeal.
Hints:
❖ Each segment represents a category.
❖ Use no more than six categories.
❖ Lay out largest portions first moving in a clock-wise position.
❖ If possible, use % to compare the information as it is the easiest method.

Slide 12


The pie chart for "Who's the best" in 10.4.1 might look like this:
Best female music recording star by %
22%
33%
11%
17%
17%
singer A
singer B
singer C
singer D
singer E

Slide 13


Music, music ....
Music preference in 16 year olds by sales %
15%
10%
rap
rock
classical
other
What type of music has the highest % and what is the %?
If a total of 10 000 CD's were sold, how many rock CD's were bought?