My mathematical journey

*Mathswatch clips in brackets

What do I need to remember from before?

Bar charts and pictograms (KS2)

Median (NP1)

Mean (NP2)

Range (NP2)

What will I learn about in this unit at CEC?

Presenting and analysing sets of discrete data using charts
(*MW S1a, S1b, S2a, S2b)

and summary statistics
mean, mode, median, and range
(*MW S6, S7)

Comparing data sets through charts and summary statistics

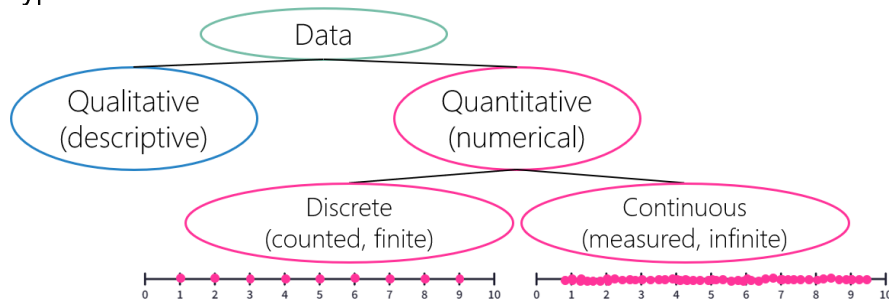Knowing the ways statistics can be used to tell a story

Where does this lead?

Presenting, analysing and comparing sets of continuous data, or bivariate data using charts and summary statistics
(SP2, SP4, SP6)

Advanced statistical analysis
(GCSE Statistics; A Level Statistics)

Key words and symbols: what I need to say and write accurately

Types of data

Data

Qualitative (descriptive)

Quantitative (numerical)

Discrete (counted, finite)

Continuous (measured, infinite)

Bias: when one answer is more likely than another because of the people we ask

Set notation: a set of numbers can be written inside curly brackets, e.g.
$\{1, 3, 3, 5\}$

$\overline{x}$ is a symbol for the mean of a data set

Measures of location
(trying to capture where the data set is)

Mean
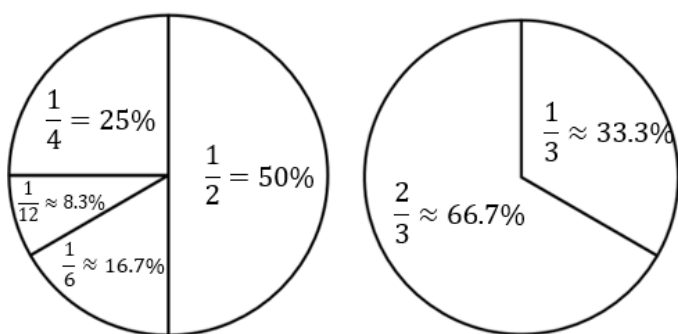total shared equally

Median
middle data point

Mode
most frequent data point

Measures of spread
(trying to capture how wide the data set it)

Range
spread of all data points

Fingertip facts: what I need to learn by heart
Common fractions of a circle

$\frac{1}{4} = 25\%$

$\frac{1}{2} = 50\%$

$\frac{1}{12} \approx 8.3\%$

$\frac{1}{6} \approx 16.7\%$

$\frac{1}{3} \approx 33.3\%$

$\frac{2}{3} \approx 66.7\%$

The statistical enquiry cycle

Ask a question

Collect some data

Interpret the data

Analyse the data