

Variation

Measuring variation

Aim: to investigate variation in your class

Equipment: ruler, meter ruler, weighing scales, lots of marbles (all the same size), string

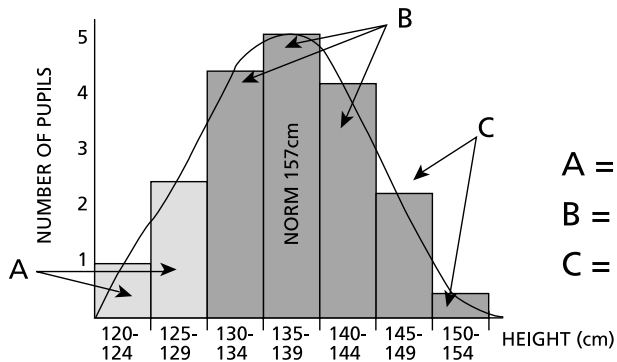
What to do:

In your group, choose one of these features to measure:

- Length of middle finger
- Circumference of wrist
- Height
- Weight
- How many marbles you can hold in one hand

You need to measure and record the feature you have chosen for every person in your class.

Next, either by hand or on computer, make a bar chart of your results. You may need some help to sort your results into sensible ranges. Your chart should look something like this one, which shows the heights of pupils in a class:



A = very short

B = most pupils are this height (the norm)

C = very tall

Use your chart to answer these questions:

- 1 What are the extreme values of what you measured?
- 2 What is the most common value for what you measured?
- 3 What is the total number of people in your sample?
- 4 If you did the same thing for your whole year group, how do you think the chart might look different?
- 5 What things might affect the value of what you measured for a particular person (try to come up with at least 3 factors)?

If you have time, you could try measuring a different feature. This could be from the list, or your own idea. If you try your own idea, check with your teacher to make sure that it's safe and reasonably sensible!