

## Sing along to the tune of 'Frosty the Snowman' as you learn the first batch of AQA ISA keywords...

Let's consider how we experiment (with correct vocabulary)...

Accurate readings... are close to the true value.

They give answers that... you could find in books... give an answer that is true! Measure **precisely**... with an instrument - that's scale... ... is very **sensitive**, - **increments** so small... that you really should not fail!

Your results will be very similar -- all close - near to the mean but that does not make them accurate... just precise - know what I mean?

If a result is... very diff'rent from the rest...

An **anomaly** is the name of it... and we must repeat the test!

Anomalies are odd readings... Sensitive - small increments... Precision means repeatable.... Mean - it means the average....

When averaging... your results - don't you forget..
that you must miss out... all anomalies.. so 'the mean' is the best set.
Then when you plot it - it will clearly show a trend...
and your line of fit... will be close to points... either straight or with a 'bend'.

Your line should be... very smooth (no bumps... or squiggles) - make it so! Whether straight or curved... all of those points above...should equal all of the points below!

So, by **repeating** ... your experiment, you test for precision in... that you have less spread, and you know they are the best...

Anomalies are odd readings... Sensitive - small increments... Precision means repeatable.... Mean - it means the average....

Repeats show readings ... are reliable in this test..
and if someone else... also gets them too ..they're a cut above the rest!
If your results should... go through 'nought' and yet they don't..
please don't fiddle it - your results just show ... there's a systematic fault!

A systematic error makes... your readings out of line
An instrument that's 'out' - wrongly set.. can cause this error.... any time!
A zero error... systematic in that the ...
instrument won't read... zero when it should... so adjusted it must be!

Random errors mean... your technique is wrong ... and you really lack the skill or your instrument's ... got a problem like... a near flat battery!