OCR Chemistry A-Level

Practical skills assessed in the written examination

Flashcards

What is a control variable?

What is a control variable?

A variable that is kept constant throughout the experiment.

What is an independent variable?

What is an independent variable?

A factor that is changed during the experiment to see the effect it has on another factor.

What is a dependent variable?

What is a dependent variable?

A factor that is measured or observed in the experiment due to the changing of the independent variable.

When plotting a graph what variables go on what axis?

When plotting a graph what variables go on what axis?

- The independent variable is on the x-axis.
- The dependent variable is on the y-axis.

How do you measure the gradient of either a tangent or line of best fit?

How do you measure the gradient of either a tangent or line of best fit?

Gradient = Change in y-coordinate ÷ Change in x-coordinate

What is an anomaly?

What is an anomaly?

The deviation of a value from its expected value (i.e. a value that doesn't fit the trend)

Why should anomalies be ignored when calculating a mean?

Why should anomalies be ignored when calculating a mean?

Not including anomalies in the mean value will make it much more accurate.

What is precision?

What is precision?

- A set of precise measurements will have very little spread about the mean.
- However precision gives no idea of how close values are to the actual, true value- only how close values are to each other.

What is accuracy?

What is accuracy?

The more accurate the data, the closer it is to the actual value.

What is an uncertainty?

What is uncertainty?

The uncertainty in a measurement is the interval within which the actual value is expected to lie.

What is percentage uncertainty and how do you calculate it?

What is percentage uncertainty and how do you calculate it?

Percentage uncertainty in a measurement =

$$100 \times \frac{absolute\ uncertainty}{calculated\ value}$$

What are different ways you can improve apparatus to give more accurate results?

What are different ways you can improve apparatus to give more accurate results?

- Increase the number of readings
- Control external variables
- Use measuring devices/equipment with greater precision