

CIE Biology IGCSE

Planning experiments and improving
technique

Flashcards



What is the independent variable?



What is the independent variable?

The variable that is changed in the practical.



What is the dependent variable?



What is the dependent variable?

The variable that is measured in the practical.



What are controlled variables?



What is a controlled variable?

Variables that are kept the same in the practical.



What is the purpose of a control?



What is the purpose of a control?

To show that it is the independent variable that is having a true effect on the dependent variable.



What criteria should be used to select the appropriate apparatus?



What criteria should be used to select the appropriate apparatus?

- Precision
- Accuracy
- Sensitivity
- Resolution



What should be planned regarding safety before starting a practical?



What should be planned regarding safety before starting a practical?

Carry out a risk assessment and take appropriate precautions.



How can the reliability of the results be improved?



How can the reliability of the results be improved?

Use a larger sample size.

Repeat the practical and take a mean.



What is the difference between accuracy
and precision?



What is the difference between accuracy and precision?

Accuracy - how close a reading is to the true value.

Precision - How close a reading is to other readings taken under the same conditions (i.e. how 'close together' they are).



State two sources of error in a practical.



State two sources of error in a practical.

Certain variables not controlled.

Equipment is not precise and/or accurate enough.

