A-Level Biology Data Analysis Practice

Level: A-Level **Subject:** Biology

Practice for interpreting biological data, graphs and experimental evidence.

Data Skills

- Identify the independent and dependent variables.
- Describe the trend using figures from the graph.
- Explain biological reasons for the trend.
- Comment on reliability and limitations.
- Suggest improvements to the method.

Practice Scenario

An enzyme reaction is measured at different temperatures. The rate increases up to 40 degrees Celsius and then decreases sharply.

Questions

- Describe the trend.
- Explain the decrease after 40 degrees Celsius.
- Suggest two improvements to increase reliability.

Answer Guidance

Use this section for self-marking or tutor-led feedback. Award partial credit for correct method, clear reasoning and accurate use of terminology.

Answer Guidance

1 Rate increases with temperature until optimum at 40 degrees Celsius, then falls.

2 Enzyme denatures; active site changes shape.

3 Repeats, control pH/substrate concentration, use more temperature intervals.