



Unit 1 – Introduction to Biology

Lesson 005 Quiz: Data Analysis and Graphing

Question 1

Which type of biological data includes measurements such as mass or temperature?

- A. Qualitative data
- B. Quantitative data
- C. Categorical data
- D. Experimental data
- E. Control data

Question 2

Which type of data includes characteristics such as color or behavior?

- A. Quantitative data
- B. Independent data
- C. Qualitative data
- D. Continuous data
- E. Numerical data

Question 3

Why do scientists organize data into tables and spreadsheets?

- A. To increase variation
- B. To arrange observations systematically
- C. To eliminate uncertainty
- D. To replace experiments
- E. To reduce sample size

Question 4

Which summary measure is commonly used to describe a dataset?

- A. Hypothesis
- B. Average
- C. Control group
- D. Independent variable
- E. Prediction

Question 5

Which graph is best for showing changes over time?

- A. Bar graph
- B. Histogram
- C. Pie chart
- D. Line graph
- E. Scatter plot

Question 6

Which graph is used to reveal relationships between two measured variables?

- A. Bar graph
- B. Scatter plot
- C. Histogram
- D. Line graph
- E. Pie chart

Question 7

Why must scientists be careful when interpreting correlations?

- A. Correlation always proves causation
- B. Correlation may result from a third factor or coincidence
- C. Correlation eliminates variation
- D. Correlation replaces experiments
- E. Correlation ignores evidence

Question 8

What can a visible pattern in data suggest?

- A. A biological relationship
- B. Absolute proof
- C. No variation
- D. Experimental error only
- E. A control group

Question 9

What should scientists report honestly when analyzing data?

- A. Only positive results
- B. Uncertainty, limitations, and possible error
- C. Only averages
- D. Only graphs
- E. Only conclusions

Question 10

Why is accurate data analysis important?

- A.** It transforms observations into reliable scientific conclusions
- B.** It guarantees every hypothesis is correct
- C.** It removes biological variation
- D.** It eliminates uncertainty
- E.** It replaces experiments

Correct Answers

1. B 2. C 3. B 4. B 5. D 6. B 7. B 8. A 9. B 10. A

Did you get all the answers correct?

If not, don't worry—just watch Lesson 5 again and try the quiz one more time.