

Kit's Computing Challenge: Data Handling Detectives

Learning objective: To accurately interpret, construct, and evaluate data using tables, bar charts, and line graphs.

Help Kit the fox organise his digital library! Read each question carefully. For multiple-choice questions, circle the letter of the correct answer.

Answer Key: 1.C, 2.True, 3.Variable, 4.B, 5.False, 6.Discrete, 7.A, 8.True, 9.Line graph, 10.B.

Word bank: Database · Axis · Variable · Trend · Frequency · Interval · Discrete data · Continuous data

1. 1. Kit is recording the number of books his friends read. Which chart is best for comparing discrete categories? A) Line graph B) Venn diagram C) Bar chart* D) Flowchart (1 mark)

2. 2. True or False: The horizontal line on a graph is called the x-axis. (1 mark)

3. 3. What is the technical term for a piece of information that can change, such as the temperature or a person's height? (1 mark)

4. 4. If you are tracking how a plant grows over four weeks, which visual representation is most appropriate? A) Pie chart B) Line graph* C) Tally chart D) Pictogram (1 mark)

5. 5. True or False: Data Handling is only useful for maths and cannot be used in subjects like Geography. (1 mark)

6. 6. Is 'the number of pets a student has' an example of discrete or continuous data? (1 mark)

7. 7. Kit earns £1.50 for every hour he spends coding. Which database field type should he use to store his earnings? A) Currency* B) Text C) Date D) Boolean (1 mark)

8. 8. True or False: A trend line on a graph helps us predict future data points based on previous patterns. (1 mark)

9. 9. What do we call the specific numerical distance between marks on an axis (e.g., going up in 2s or 5s)? (1 mark)

10. 10. Which is a reliable way to collect primary data? A) Guessing B) Conducting a survey* C) Copying old notes D) Ignoring outliers (1 mark)

Draw: Draw a bar chart representing the number of apples Kit, Pip, and Nova have collected. Kit has 10, Pip has 7, and Nova has 12. Remember to label your axes!



Extension challenge: 1. Explain why it is important to include a title and axis labels on a graph. 2. Compare and contrast a bar chart and a line graph; when would you choose one over the other? 3. Justify why an 'outlier' might appear in a data set. 4. What might happen if the intervals on your y-axis were not equal? 5. If you were creating a database for a library, what specific fields would you include? 6. Propose a scientific experiment you could conduct, and describe how you would record and present your data.