

Kit's Computing Data Challenge

Learning objective: To understand how to collect, organize, and interpret data using digital tools and databases.

Join Kit the fox in the digital forest! Read each question carefully and select or write the best answer. Remember, data is just information waiting to be organized.

Answer Key: 1.C, 2.True, 3.Field, 4.B, 5.False, 6.Sort, 7.A, 8.True, 9.Database, 10.B. Explanation for Greater Depth: A record contains all the data about one specific item, while a field is a single piece of information, like a name or a price.

Word bank: Database · Record · Field · Sort · Search · Chart · Information · Binary

1. 1. Kit wants to store information about his forest friends. What is the best digital tool to use? A) A word processor B) A paint program C) A database* D) A calculator (1 mark)

2. 2. True or False: Data can be represented as numbers, words, or even images. (1 mark)

3. 3. In a database, what do we call a single category of information, such as 'Age' or 'Favorite Color'? (1 mark)

4. 4. If you have a list of prices (£2, £5, £1, £8) and you want to put them from smallest to largest, what action are you performing? A) Filtering B) Sorting* C) Deleting D) Searching (1 mark)

5. 5. True or False: You can only sort data in a database by using numbers. (1 mark)

6. 6. What is the term for finding a specific piece of information within a large set of data? (1 mark)

7. 7. Which of these is the most effective way to visually compare the heights of four different trees? A) A bar chart* B) A list of names C) A paragraph of text D) A single number (1 mark)

8. 8. True or False: A 'record' contains all the fields of information for one specific item in a database. (1 mark)

9. 9. What name do we give to a collection of organized data that is easy to access, manage, and update? (1 mark)

10. 10. Why is it important to check that your data is accurate before creating a chart? A) It makes the computer look nice B) To ensure your conclusions are correct* C) It saves electricity D) Computers don't like mistakes (1 mark)

Draw: Draw a simple database table for Kit the fox to track his acorn collection. Include columns for 'Date', 'Number of Acorns', and 'Location found'.

[illegible]

Extension challenge: 1. Explain why a database is more useful than a paper list when you have over 100 items to track. 2. Justify your answer: If you were creating a database of store items priced in pounds, why is it important to use consistent formatting (e.g., £2.50 instead of 2.5 and 2.50)? 3. Compare and contrast a database to a physical filing cabinet. 4. What might happen if a field in your database contained the wrong data type (e.g., putting a name in a 'Price' field)? 5. If you were designing a database for a library, what fields would you need to include? 6. Design a plan for a survey you could conduct in class. What data would you collect and how would you represent it visually?