Kit's Computing Challenge: Organising Our World

1. Data. (1 mark)

Working: The word bank defines the facts and numbers collected as 'data'.

Award 1 mark for the correct term.

2. Hedgehogs: ||||, Robins: |||| ||, Badgers: |||, Foxes: |||| | (4 marks)

Working: Hedgehogs=4, Robins=7, Badgers=3, Foxes=6.

1 mark per correct tally row.

3. The robin was the most popular. I know this because 7 is the highest number in the list. (3 marks)

Look for: Identification of the robin and reference to the number 7.

Good: The robin was the most popular.

Better: The robin was the most popular because they saw 7 of them.

Best: The robin was the most popular animal because the passage says there were 7 robins, which is more than any other animal.

What moves an answer up: Moving up requires linking the identification to the specific numerical evidence provided in the text.

4. 4 symbols. (2 marks)

Working: There were 4 hedgehogs and each symbol represents 1 animal.

Award 2 marks for the correct number.

5. 1. It is faster to see the numbers. 2. It is easier to compare which group is biggest. (4 marks)

Look for: Two distinct benefits of visual organisation over text.

Good: It is easier to read.

Better: It is easier to read because you can see the numbers quickly without reading sentences.

Best: Tables are better because they organise the information clearly and make it much easier to compare which animal was seen the most.

What moves an answer up: Moving up requires explaining the 'why' behind the ease of use (speed and comparison).

6. Question: 'What is your favourite activity in the park?' Recording: I would use a tally chart to mark one line for every child's answer. (5 marks)

Look for: A relevant question and a method involving tallying.

Good: What do you like to do? I would write it down.

Better: What is your favourite park activity? I would use a tally chart to count the answers.

Best: Question: 'What is your favourite park activity?' I would record the data by making a tally mark next to the activity name every time a classmate tells me their choice.

What moves an answer up: Moving up requires a clear, specific question and a description of the tallying process.

7. 3 symbols. (6 marks)

Working: 6 foxes divided by 2 (value per symbol) = 3 symbols.

Award 6 marks for the correct calculation and answer.

What a secure answer looks like

A secure answer shows an understanding that data is a way to represent real-world counts. Pupils should be able to switch between tallies, tables, and pictograms accurately.

If your child is stuck

Ask your child to imagine they are a shopkeeper. How would they keep track of how many apples they sold today? Suggest using lines (tallies) to count them.

Common mistakes to watch for

Children often forget to group tallies in fives (using a diagonal line) or struggle with pictograms where one symbol represents more than one item (e.g., 2 or 5).