Max’s Market Stall Statistics

Learning objective: To interpret, present, and compare data using bar charts and pictograms, and solve comparison and sum/difference problems.

Max the monkey is helping the local orchard sell fruit to earn money for his library. He has collected data on the number of items sold on Saturday. Use the data table below to complete the tally chart and answer the questions. Then, use your statistics skills to justify your findings.

Word bank: Frequency · Data · Tally · Bar Chart · Pictogram · Interval · Scale

1. Max sold 12 apples, 8 pears, 15 plums, and 5 peaches. Create a tally chart for this data. How many more plums were sold than peaches? Show your calculation. (2 marks)

2. If apples cost £1.20 each and pears cost £0.80 each, calculate the total amount of money earned from apple and pear sales combined. (2 marks)

3. Explain why it is important to choose an appropriate scale (interval) when drawing a bar chart for this data. What might happen if you chose a scale of 10? (2 marks)

4. Compare the data for plums and peaches. Justify why Max might decide to order more plums than peaches for his market stall next week based on these statistics. (3 marks)

5. If Max wants to represent this data using a pictogram where one symbol represents 2 pieces of fruit, how would he represent the 5 peaches? Explain your reasoning. (2 marks)

6. If Max earned £45.00 in total and the market stall fee cost £12.50, how much profit did he make? Explain the difference between 'revenue' and 'profit'. (3 marks)

Draw: Draw a bar chart representing Max's fruit sales. Ensure you include a clear title, labelled axes, and an appropriate scale. Remember to use a ruler for your bars!

Extension challenge: Design a survey question you could ask your classmates about their favourite fruit. Create a table to record the potential responses and explain which type of chart (bar chart, pictogram, or table) would be most effective for displaying your results and why.