Year 4 · Statistics: Picture the Data

Name: _____ Date: _____

Hi there! This sheet is all about turning numbers into dot plots and bar graphs so we can spot patterns. Remember to give every graph a clear title, label your axes, and start your scale at 0!

Warm-up

1. A dot plot shows how many pets some tamariki have. There are 3 dots above the number 2. How many children have exactly 2 pets?

2. On a bar graph, the scale on the side goes 0, 2, 4, 6, 8. What number should the scale always start at?

3. Name the two kinds of graph we use for numerical data in this unit.

4. A bar graph is missing its heading. Which part tells us the purpose of the graph, the title or the axis units?

Practice

5. Mila asked 5 friends how many books they read last week. Their answers were: 1, 3, 2, 1, 3. Draw a dot plot for the numbers 0 to 4 and put the right number of dots above each value.

6. Here are the scooters counted outside four classrooms: Room 1 has 4, Room 2 has 6, Room 3 has 3, Room 4 has 5. On a bar graph with a scale going up in 1s, how tall would the tallest bar be?

7. Using the same scooter data (4, 6, 3, 5), how many scooters were counted altogether?

8. A dot plot titled 'Goals scored by the Avondale team each game' shows: 0 goals (2 dots), 1 goal (3 dots), 2 goals (1 dot), 3 goals (1 dot). How many games were played in total?

9. Word problem: Noa counted the colours of jandals at the beach. He found 5 blue, 2 red, 4 green and 1 yellow. He wants to make a bar graph. What should the height of the 'green' bar be, and which colour bar is the shortest?

10. Word problem: Aria surveyed her class about how many glasses of water they drank. She recorded: 2, 3, 2, 4, 2, 3. If she makes a dot plot, which number of glasses has the most dots, and how many dots is that?

Challenge

11. Kauri made a bar graph of pieces of fruit sold at the school gala: apples 8, bananas 6, oranges 10, pears 4. He wants his scale to go up in 2s starting at 0. List the numbers that would be on his scale, and say how many

gridlines (steps) high the 'oranges' bar reaches.

12. Two dot plots show test scores for Room 5 and Room 6. In Room 5 the dots are spread from 3 to 9. In Room 6 the dots are bunched together from 6 to 8. Write one sentence comparing the variation (spread) in the two rooms.