TEACHER PAGE • ANSWERS, MODEL CHART AND RUNNING A SURVEY

Birds at our bird feeder: teacher notes

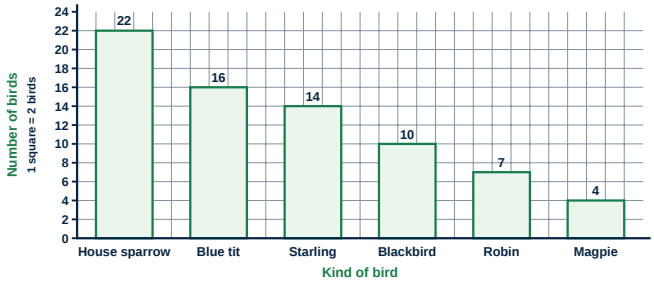
NC England Y4 Maths: Statistics

1 Frequencies and bars

BIRD	FREQUENCY	BAR HEIGHT (SQUARES)
House sparrow	22	22 ÷ 2 = 11
Blue tit	16	16 ÷ 2 = 8
Starling	14	14 ÷ 2 = 7
Blackbird	10	10 ÷ 2 = 5
Robin	7	7 ÷ 2 = 3½
Magpie	4	4 ÷ 2 = 2
Grand total	**73**	22 + 16 + 14 + 10 + 7 + 4 = 73

Look for: the five missing frequencies correct (the sparrow is done as the example) and the grand total.

2 Model bar chart



LOOK FOR

- A title, such as "Birds at our feeder in one week".
- All six bars the right height.
- Bars the same width, with equal gaps.

COMMON ERRORS

- Counting a gate of five as 4 or 6.
- Reading 1 square as 1 bird on the scale.
- Robin bar drawn to 3 or 4 squares, not 3½.

SUPPORT AND STRETCH

- **Support:** pupils ring each gate of 5 and count in fives aloud.
- **Stretch:** choose a scale for 50 visits on a 12-square grid (1 square = 5).

RUNNING THE REAL SURVEY

Use the birds that visit **your** school. Watch from a window or a quiet spot; keep away from nests; adults fill and clean feeders. We count **visits**, so one bird may be counted twice.

3 Answers to Q1 to Q7

Q1 House sparrow, 22.
Q2 Magpie, 4.
Q3 22 − 10 = **12**.
Q4 **73**, the same as the grand total.
Q5 Blue tit and starling: 16 + 14 = 30.
Q6 Starling: 7 × 2 = 14 (3½ squares and 7 squares).
Q7 Any two sensible reasons: weather, season, food in the feeder, time of day, a cat or people nearby, a different watcher, the same bird counted twice.
Go further 22 squares; no, the grid is only 12 squares tall.

WHAT TO LOOK FOR IN Q1 TO Q7

Q1 and Q2: the right bird and its number. Q3 to Q6: a correct answer for each. Q7: two sensible, different reasons.

NEXT LESSON: THEIR OWN DATA

Pupils run the survey they planned, then draw their own bar chart. On a 12-square grid the scale depends on the largest frequency: up to 12, 1 square = 1; up to 24, 1 square = 2; up to 60, 1 square = 5.

Talk question: is a house sparrow really the most common bird at our school, or just the one that visits the feeder most? How could we find out?