Bluegill Fish Drawing: Body Shape, Fin Placement, and Scale-Row Counting

Original tasks 1, 2 / complete keys

Task 1

On paper 18 cm wide, draw a bluegill side view with body length 14 cm and body depth 7 cm. Place all five fin groups and draw a scale-row grid with 10 lines, excluding 1 line outside the counted flank zone. Record the count.

Answer: Body 14 cm by 7 cm. Dorsal from vertical midline to near caudal-fin base; anal below rear dorsal; caudal at base; pectoral behind gill cover angled down; pelvic below and slightly behind pectoral. Grid 10 lines minus 1 excluded equals recorded count 9.

Reason: Depth is half the length, matching the convention. Each fin is placed by landmark. The count follows the stated convention.

Check: Measure depth and length with a ruler; verify each fin against its landmark; recount grid lines inside the counted zone and confirm 10 minus 1 equals 9.

Task 2

Draw a bluegill side view with body length 12 cm and body depth 6 cm. Draw a scale-row grid with 8 lines and exclude 0 lines. Label all five fin groups. State the counting convention in one sentence.

Answer: Body 12 cm by 6 cm. Five fin groups placed by landmark. Grid 8 lines, 0 excluded, recorded count 8. Convention sentence: scale rows are counted as parallel grid lines across the flank between pectoral fin and caudal-fin base.

Reason: The convention sentence makes the count checkable. Zero excluded lines means the recorded count equals the drawn lines.

Check: Confirm depth is half the length; verify labels are outside the outline; check that 8 minus 0 equals 8 and the convention sentence names the counted zone.

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Original tasks 3, 4 / complete keys

Task 3

Draw a bluegill side view with body length 10 cm and body depth 5 cm. Draw a scale-row grid with 14 lines and exclude 3 lines outside the counted flank zone. Record the count and explain the arithmetic in one line.

Answer: Body 10 cm by 5 cm. Five fin groups placed by landmark. Grid 14 lines, 3 excluded, recorded count 11. Arithmetic line: 14 minus 3 equals 11.

Reason: The arithmetic line makes the count transparent. Excluded lines are outside the counted flank zone, so they are subtracted.

Check: Measure length and depth; verify each fin landmark; recount lines inside the zone and confirm 14 minus 3 equals 11.

Task 4

Draw a bluegill side view with body length 16 cm and body depth 8 cm. Draw a scale-row grid with 12 lines and exclude 2 lines. Then draw a second grid with 12 lines and exclude 4 lines. Record both counts and state which grid has fewer counted rows.

Answer: Body 16 cm by 8 cm. Five fin groups placed by landmark. First grid: 12 minus 2 equals 10. Second grid: 12 minus 4 equals 8. The second grid has fewer counted rows.

Reason: Both grids use the same convention; only the excluded lines differ. Comparing counts requires consistent arithmetic.

Check: Confirm both grids have 12 drawn lines; verify 12 minus 2 equals 10 and 12 minus 4 equals 8; check that 8 is less than 10.

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Source rubric / reflection

- [ ] Body depth is about half the snout-to-caudal-base length.
- [ ] Dorsal fin spans from the vertical midline toward the caudal-fin base.
- [ ] Anal fin sits below the rear dorsal span.
- [ ] Caudal fin attaches at the caudal-fin base and fans backward.
- [ ] Pectoral fin is on the flank behind the gill cover, angled down.
- [ ] Pelvic fin is on the belly below and slightly behind the pectoral fin.
- [ ] Scale-row grid lines are evenly spaced and the counting convention is stated.
- [ ] Recorded count equals drawn lines minus excluded lines.
- [ ] All five fin groups are labeled legibly outside the body outline.
- [ ] Valid alternatives in fin-ray detail and handwriting are accepted.

Reflection: What did you check, what did you change, and what will you try next?