Draw an Aquarium Fish: Body, Fins, and Tank Context

Original tasks 1, 2 / complete keys

Task 1

A student draws a 10 cm baseline and a 4 cm body depth, then sketches a body that reaches 3 cm above the baseline and 1 cm below. Using the midline check, describe the imbalance and state one correction.

Answer: The body is unbalanced: it reaches 3 cm above and only 1 cm below the baseline, so the top is deeper than the bottom. Correction: adjust the lower curve to reach about 2 cm below the baseline so top and bottom are closer to equal around the midline.

Reason: The midline represents the deepest body point, and balance is checked by comparing distances above and below the baseline. Equal or near-equal distances give a balanced body.

Check: Measure the vertical distance from baseline to the top curve and from baseline to the bottom curve at the midpoint; compare the two values.

Task 2

A side-view fish has a 12 cm body length. The caudal fin is drawn 6 cm long. Using the hypothetical proportion of one quarter to one third of body length, state whether the fin is within range and give a corrected length range.

Answer: 6 cm is too long. One quarter of 12 cm is 3 cm and one third is 4 cm, so a corrected caudal fin length is about 3 to 4 cm.

Reason: The proportion is applied to body length: 12 divided by 4 equals 3, and 12 divided by 3 equals 4. The drawn 6 cm exceeds the upper value.

Check: Divide the body length by 4 and by 3 to get the range, then compare the drawn fin length to that range.

Draw an Aquarium Fish: Body, Fins, and Tank Context

Original tasks 3, 4 / complete keys

Task 3

A tank boundary is 18 cm wide. The fish is drawn 14 cm long. Using the hypothetical guide that the fish should occupy roughly one third to one half of the tank width, state whether the fish is too large and give a corrected length range.

Answer: 14 cm is too large. One third of 18 cm is 6 cm and one half is 9 cm, so a corrected fish length is about 6 to 9 cm.

Reason: The guide is applied to tank width: 18 divided by 3 equals 6, and 18 divided by 2 equals 9. The drawn 14 cm exceeds the upper value.

Check: Divide the tank width by 3 and by 2 to get the range, then compare the drawn fish length to that range.

Task 4

A student marks a dorsal fin root on the top rear third, a caudal root at the tail base, and an anal root on the lower rear third, but draws the pectoral fin floating 1 cm away from the body behind the gill area. Identify the mistake and state the fix using the attachment convention.

Answer: The pectoral fin is disconnected from the body. Fix: mark a pectoral root on the body outline behind the gill area, then redraw the fin outward from that root so it touches the body.

Reason: The convention requires every fin to attach at a marked root on the body outline. A floating fin violates the attachment rule even if its position is roughly correct.

Check: Trace each fin edge back to the body outline; if there is a gap, the root is missing or misplaced.

Draw an Aquarium Fish: Body, Fins, and Tank Context

Source rubric / reflection

- [ ] Body is a closed shape built from a baseline and midline with deliberate depth.
- [ ] Top and bottom body curves are roughly balanced around the baseline.
- [ ] Every visible fin has a marked root attached to the body outline.
- [ ] Fin shapes are smooth and consistent with the chosen view.
- [ ] Tank context includes a boundary, waterline, substrate line, and limited decoration.
- [ ] Tank context lines are lighter or thinner than the fish outline.
- [ ] Fish occupies a reasonable share of the tank width with clear margin.
- [ ] Final drawing is readable and construction lines are erased or faint.

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