Draw a Wetland Scene: Marsh Plants, Water Edge, and Wildlife

Original tasks 1, 2, 3 / complete keys

Task 1

A frame is 24 cm wide and 18 cm high with a 3 cm margin on all sides. Calculate the frame width and frame height inside the margins.

Answer: Frame width = 24 - 6 = 18 cm; frame height = 18 - 6 = 12 cm.

Reason: Subtract twice the margin from each overall dimension because the margin is on both sides.

Check: Add the margins back: 18 + 3 + 3 = 24 cm and 12 + 3 + 3 = 18 cm.

Task 2

Inside a 16 cm wide frame, a frog silhouette is 4 cm wide. What fraction of the frame width does the frog occupy? Is it suitable as a midground silhouette if foreground plants are 10 cm tall?

Answer: The frog occupies 4/16 = 0.25, or one-quarter of frame width. The frog is 4 cm wide; if foreground plants are 10 cm tall, the frog's width is less than the plant height, so it can work as a midground silhouette provided it is placed behind the plants and below the horizon guide.

Reason: Fraction is silhouette width divided by frame width. Midground wildlife should stay smaller than the foreground plants and sit in the midground band.

Check: Multiply 0.25 by 16 cm to recover 4 cm, and confirm 4 cm is less than the 10 cm plant height.

Task 3

A water-edge line runs from the left frame side at 9 cm height to the right frame side at 6 cm height. Describe the slope and state whether it is parallel to the bottom edge.

Answer: The line drops 3 cm from left to right over the frame width, so it slopes gently downward and is not parallel to the bottom edge.

Reason: A parallel line would have equal heights at both sides. Different heights create a shallow angle.

Check: Subtract the two heights: 9 - 6 = 3 cm difference, confirming a slope.

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Original tasks 4 / complete keys

Task 4

A frame is 20 cm wide and 15 cm high inside the margins. A horizon guide is placed one-third from the top inside the frame. Calculate its distance from the top of the frame and from the bottom of the frame.

Answer: One-third of 15 cm is 5 cm from the top; the remaining distance is 10 cm from the bottom.

Reason: Divide frame height by 3 for the top distance, then subtract from total height for the bottom distance.

Check: Add the two distances: 5 + 10 = 15 cm, matching frame height.

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Source rubric / reflection

- [ ] Frame and margin are measured and recorded in consistent units.
- [ ] Horizon guide is placed at a recorded fraction and kept light.
- [ ] Water-edge line crosses the frame at a shallow angle and is clearly visible.
- [ ] Three to five foreground marsh plants have anchored bases and cross the water edge where intended.
- [ ] Two or three midground wildlife silhouettes are smaller than foreground plants and sit between water edge and horizon.
- [ ] Zones read as foreground, transition, and midground without turning into a forest, ecosystem map, or aquarium scene.
- [ ] Valid alternatives in plant shape, wildlife choice, and horizon fraction are accepted if zones remain distinct.

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