Draw a Generic Mammal with Mass Shapes and Joint Landmarks

Original tasks 1, 2 / complete keys

Task 1

A learner places an abdomen ovoid 8 cm long, a chest ovoid 5 cm long, and a hindquarter ovoid 5 cm long. The head ovoid is 3 cm long. They mark the shoulder circle 2 cm below the top of the chest and the hip circle 2 cm below the top of the hindquarter. The front wrist circle is on the ground line and the hind ankle circle is 1 cm above the ground line. Describe one adjustment to balance the legs and explain why.

Answer: Move the hind ankle circle down by 1 cm so it reaches the ground line. Both feet should contact the ground at similar heights for a balanced stance.

Reason: The front leg already reaches the ground line, but the hind leg is 1 cm short. Lowering the hind ankle circle equalizes ground contact without changing the body masses.

Check: Measure the distance from each lowest joint circle to the ground line. Both should be zero or equal within your drawing's tolerance.

Task 2

A learner draws fur arrows on the back pointing from back to front, on the chest pointing upward, and on the legs pointing upward. They ask whether the fur direction is consistent. Describe a correction using general fur-direction cues.

Answer: Change the back arrows to point from front to back, the chest arrows to curve downward and backward, and the leg arrows to point down toward the feet. These general cues create a consistent flow.

Reason: Fur direction generally follows body curvature and gravity. Front-to-back on the back, downward and backward on the chest, and downward on the legs are consistent general cues.

Check: Trace each arrow and confirm it follows the body's curvature without reversing direction abruptly at a joint circle.

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Original tasks 3, 4 / complete keys

Task 3

A learner marks only two joint circles per leg: shoulder and wrist on the front leg, hip and ankle on the hind leg. They connect the circles with straight lines. Explain why adding the elbow and knee circles improves the construction.

Answer: Add elbow and knee circles between the upper and lower landmarks. These middle joints help keep the limb segments proportional and make the leg read as a jointed limb rather than a straight stick.

Reason: The elbow and knee are main landmarks that divide the leg into upper and lower segments. Without them, the limb loses proportional control and looks stiff.

Check: Count the joint circles per leg. Each leg should have three main landmarks: shoulder or hip, elbow or knee, and wrist or ankle.

Task 4

A learner draws a generic mammal with a very large abdomen ovoid and a very small chest ovoid. The head ovoid is placed far forward, leaving a long gap between the head and chest. Suggest two adjustments to improve the construction and explain how to check them.

Answer: Reduce the abdomen ovoid slightly or enlarge the chest ovoid to balance the body masses. Move the head ovoid closer to the chest and add a short neck mass to connect them. Check that the masses overlap smoothly and that the head is supported by the neck.

Reason: A very large abdomen with a small chest makes the mammal front-light and unstable. A long gap between head and chest breaks the continuous body mass. Balancing the masses and connecting the head with a neck mass improves coherence.

Check: Trace the outline of the body masses and confirm they overlap without gaps. Measure the distance between the head and chest ovoids; it should be bridged by a neck mass.

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Source rubric / reflection

- [ ] Body masses are clear ovoids for head, chest, abdomen, and hindquarters, with smooth overlap.
- [ ] Joint circles mark shoulder or hip, elbow or knee, and wrist or ankle on each leg.
- [ ] All four feet reach the ground line at similar heights.
- [ ] Fur-direction arrows follow a consistent flow and do not obscure joint circles.
- [ ] The drawing is balanced and readable as a generic mammal, with valid alternatives allowed for mass sizes and fur patterns.

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