Glossy Plastic Drawing: Bottle and Cup Shading

Original tasks 1, 2, 3 / complete keys

Task 1

A cup outline is 8 cm tall and 6 cm wide. Light comes from the upper left. Describe the diffuse zone and highlight placement in centimeters from the left edge, and state one check.

Answer: Diffuse zone from about 1.5 cm to 3 cm from the left edge; highlight about 0.7 cm wide inside that band, starting 1.5 cm below the rim. Check: highlight does not touch the rim or side outline.

Reason: The left third of a 6 cm width is about 2 cm, so the diffuse band sits there and the highlight is narrower inside it.

Check: Measure the highlight width and confirm it is less than the diffuse zone width and does not cross the silhouette.

Task 2

You have five value steps. Assign values to specular, diffuse, body, shadow side, and contact shadow for a glossy bottle, then name one mistake to avoid.

Answer: Specular: paper white; diffuse: light gray; body: middle gray; shadow side: dark gray; contact shadow: near-black. Avoid making the diffuse zone as bright as the specular highlight.

Reason: The value order preserves contrast between the two reflection zones and keeps the darkest value at the base.

Check: Compare the diffuse and specular patches on a scrap strip; the specular must be lighter.

Task 3

A bottle is 10 cm tall. The highlight starts 2 cm from the top and ends 2 cm from the base. How long is the highlight, and where should the diffuse zone sit relative to it?

Answer: Highlight length is 6 cm. The diffuse zone should be wider than the highlight and centered on the same left-third band.

Reason: 10 minus 2 minus 2 equals 6 cm. The diffuse zone surrounds the highlight and is broader.

Check: Measure the highlight length on the drawing and confirm it equals 6 cm; confirm diffuse width is greater.

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Original tasks 4 / complete keys

Task 4

Describe how to adjust the drawing if you choose light from the upper right instead of upper left, and give one rubric note.

Answer: Mirror the placement: diffuse zone and highlight move to the right third, with the crisp edge on the right side. Rubric note: state the rotated light direction at the top of the page.

Reason: The convention is relative to the light direction, so mirroring preserves the logic.

Check: Confirm the highlight is on the stated light side and the crisp edge faces the light.

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Source rubric / reflection

- [ ] Light direction is stated and followed consistently on both objects.
- [ ] Specular highlight is narrow, bright, and placed on the light side.
- [ ] Diffuse zone is wider and softer than the specular highlight.
- [ ] Highlight edge is crisp on the light side and softened on the shadow side.
- [ ] Darkest value is at the contact shadow, not in the diffuse zone.
- [ ] Valid alternatives such as rotated light or colored pencil are accepted if the convention is stated and followed.

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