Pencil Drawing of Smoke: Wisps, Density and Shading

Original tasks 1, 2 / complete keys

Task 1

Draw a plume 9 cm tall and 3 cm wide with two wisps per side. Mark three density zones and record stroke spacing for each zone using a hypothetical 2:1 ratio.

Answer: Centerline 9 cm; zones at 0-3 cm, 3-6 cm, 6-9 cm. Four tapered wisps, two per side. Hypothetical spacing: 2 mm in the dense zone, 4 mm in the medium zone, 8 mm in the faint zone, each step doubling as the 2:1 ratio requires.

Reason: The 3:1 height-to-width ratio keeps the plume balanced, and the 2:1 spacing ratio creates a visible gradient from dense to faint.

Check: Measure height and width and confirm the 3:1 ratio in consistent units. Count strokes in a 1 cm square in each zone and confirm the dense count is about twice the medium and the medium about twice the faint.

Task 2

Draw a plume with one inward-curling wisp and three outward wisps. Ensure the inward curl does not cross the centerline more than once.

Answer: Four wisps total: one inward curl starting in the medium zone that curves toward the centerline and tapers to a point before crossing it, plus three outward wisps drawn as tapered S-curves and C-curves. No wisp is a straight line or thick tube.

Reason: A single controlled inward curl adds variety without clutter, and tapering before the centerline keeps the plume readable.

Check: Trace the inward wisp with a pencil tip; confirm it crosses the centerline at most once and ends in a point. Confirm the three outward wisps taper and leave at least one clear gap between major wisps.

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Original tasks 3, 4 / complete keys

Task 3

Shade a plume where the top third has half the stroke count of the middle third. Record the counts in two 1 cm squares and state whether the gradient reads correctly.

Answer: Hypothetical example counts in 1 cm squares: middle third 12 strokes, top third 6 strokes. The gradient reads correctly because the top is visibly lighter and the count is about half the middle count.

Reason: Halving the stroke count in the top third creates a measurable contrast drop that matches dissipation.

Check: Count strokes in each 1 cm square and divide the top count by the middle count; confirm the result is about 0.5. View from one metre to confirm the top third looks fainter than the middle.

Task 4

Draw a plume 15 cm tall and 5 cm wide with five wisps. Use an eraser to lift graphite at two wisp tips and confirm no hard outline remains.

Answer: Centerline 15 cm; zones at 0-5 cm, 5-10 cm, 10-15 cm. Five tapered wisps; two tips lifted with an eraser to fade into the paper. No continuous outline around the plume; edges shaded inward instead.

Reason: The 3:1 ratio and five wisps give enough detail without clutter, and eraser lifts create fading at the tips.

Check: Measure height and width and confirm the 3:1 ratio in consistent units. Run a finger along the plume edge to feel for a hard line, and view from one metre to confirm the two lifted tips fade and the core remains darkest.

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Source rubric / reflection

- [ ] Plume has a clear centerline and three distinguishable density zones.
- [ ] Wisps are tapered curves, not straight lines or tubes.
- [ ] Dense core is the darkest area and the top is the faintest.
- [ ] Edges fade without a hard outline.
- [ ] At least one clear gap remains between major wisps.
- [ ] Height-to-width ratio is recorded and consistent with the chosen example.
- [ ] Drawing reads as smoke from about one meter away.

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