Tundra Plants Drawing: Shape and Texture Study

Original tasks 1, 2 / complete keys

Task 1

Draw a lichen crust with height 5 millimeters. Use dots for texture and leave at least half the interior unmarked. Label the patch outline, interior lobes, and gaps. Check that width is between 15 and 25 millimeters.

Answer: A wavy patch 20 millimeters wide and 5 millimeters tall, with interior lobes touching but leaving narrow gaps. Dots cover about 40 percent of the interior, concentrated near the edges. Labels mark patch outline, interior lobes, and gaps. Width-to-height ratio is 20:5, or 4:1, within the 3:1 to 5:1 range.

Reason: The height is given as 5 millimeters. The convention requires width to be three to five times height, so width should be 15 to 25 millimeters. A width of 20 millimeters satisfies this. Dots are the chosen mark type, and leaving half unmarked follows the light convention.

Check: Measure the widest part of the patch in millimeters. Divide width by height. The result should be between 3 and 5. Also check that at least half the interior is free of dots.

Task 2

Draw a low shrub with width 40 millimeters. Use clumps for leaf clusters and short strokes along branches. Label the central stem, branches, and leaf clusters. Check that height is about 20 millimeters.

Answer: A shrub 40 millimeters wide and 20 millimeters tall, with a short central stem and four branches spreading at 30 to 60 degrees from horizontal. Each branch ends in a clump of three to six short strokes. Short strokes run along branch lengths. Labels mark central stem, branches, and leaf clusters. Height-to-width ratio is 20:40, or 1:2.

Reason: The width is 40 millimeters. The convention requires height to be about half the width, so height should be about 20 millimeters. Four branches at 30 to 60 degrees maintain a sprawling look. Clumps and short strokes provide consistent texture.

Check: Measure height and width in millimeters. Divide height by width; the result should be between 0.45 and 0.55. Check that branch angles are between 30 and 60 degrees from horizontal.

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Original tasks 3, 4 / complete keys

Task 3

Draw a cushion plant with width 24 millimeters. Use short strokes for texture and leave at least half the interior unmarked. Label the dome outline, radiating lines, and ground line. Check that height is about 8 millimeters.

Answer: A flattened dome 24 millimeters wide and 8 millimeters tall, with a bumpy top edge. Five radiating lines curve from center to outline without crossing it. Short strokes follow the dome curve, covering about 40 percent of the interior, denser near the base. Labels mark dome outline, radiating lines, and ground line. Height-to-width ratio is 8:24, or 1:3.

Reason: The width is 24 millimeters. The convention requires height to be about one-third of width, so height should be about 8 millimeters. Short strokes are the chosen mark type, and leaving half unmarked follows the light convention.

Check: Measure height and width in millimeters. Divide height by width; the result should be between 0.30 and 0.35. Check that radiating lines do not cross the outline and that at least half the interior is unmarked.

Task 4

Draw a lichen crust with width 18 millimeters. Use cross-hatching as an alternative texture mark and leave at least half the interior unmarked. Label the patch outline, interior lobes, and gaps. Check that height is between 3.6 and 6 millimeters.

Answer: A wavy patch 18 millimeters wide and 5 millimeters tall, with interior lobes touching but leaving narrow gaps. Fine cross-hatching covers about 40 percent of the interior, concentrated near the edges. Labels mark patch outline, interior lobes, and gaps. Width-to-height ratio is 18:5, or 3.6:1, within the 3:1 to 5:1 range.

Reason: The width is 18 millimeters. The convention requires width to be three to five times height, so height should be between 3.6 and 6 millimeters. A height of 5 millimeters satisfies this. Cross-hatching is a valid alternative mark type if kept consistent.

Check: Measure width and height in millimeters. Divide width by height; the result should be between 3 and 5. Check that cross-hatching is consistent and that at least half the interior is unmarked.

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Source rubric / reflection

- [ ] Cushion plant height is about one-third of its width (approximately 0.30–0.35).
- [ ] Lichen patch width is between three and five times its height.
- [ ] Low shrub height is about half its width (approximately 0.45–0.55).
- [ ] Each plant uses one consistent texture mark type per area.
- [ ] At least half of each plant's interior is left unmarked.
- [ ] All key parts are labeled: dome outline, radiating lines, ground line for cushion; patch outline, interior lobes, gaps for lichen; central stem, branches, leaf clusters for shrub.
- [ ] Texture marks follow surface direction: curved on domes, aligned along branches.
- [ ] Valid alternatives are accepted if proportions and labeling checks are met.

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