Draw a Eucalyptus Tree: Sickle Leaves and Peeling Bark

Original tasks 1, 2, 3 / complete keys

Task 1

A trunk is 20 cm tall and 1.4 cm wide at the base. It tapers to 0.5 cm at the first branch. Calculate the base-to-top width ratio and state whether the taper is gradual enough for the lesson convention.

Answer: The ratio is 1.4 to 0.5, or 2.8 to 1. The taper is gradual because the width decreases steadily over the full height without a step.

Reason: Divide the base width by the top width: 1.4 divided by 0.5 equals 2.8. A gradual taper means the change is spread along the trunk, not concentrated at one point.

Check: Measure the drawn trunk at three heights and confirm the widths decrease in order without a sudden jump.

Task 2

A leaf is 5 cm long. Its widest width is 0.7 cm, and its tip is offset 1.2 cm from the straight line between base and tip. Is the tip offset within the gentle-sickle range described in the lesson, where the hypothetical example used about 20 to 25 percent of leaf length?

Answer: Yes. The offset is 1.2 divided by 5, which is 24 percent, within the gentle-sickle range.

Reason: Convert the offset to a fraction of leaf length: 1.2 divided by 5 equals 0.24, or 24 percent. The lesson's hypothetical example used about 23 percent, so this is comparable.

Check: Draw the straight base-to-tip line and measure the perpendicular offset at the tip; divide by leaf length.

Task 3

A trunk is 1.2 cm wide. Using the lesson's hypothetical strip range of 0.2 to 0.4 cm, how many strips of 0.3 cm width could fit side by side across the trunk if there were no gaps?

Answer: Four strips of 0.3 cm fit across 1.2 cm, because 1.2 divided by 0.3 equals 4.

Reason: Divide trunk width by strip width: 1.2 divided by 0.3 equals 4. In practice, gaps are required, so fewer than four strips should be drawn across the full width.

Check: Measure the trunk width and one strip width with the same ruler, then divide and compare with the drawn strip count.

Draw a Eucalyptus Tree: Sickle Leaves and Peeling Bark

Original tasks 4 / complete keys

Task 4

A branch joins the trunk at a point where the trunk is 0.8 cm wide. The branch is drawn 0.4 cm wide at the join and 0.15 cm wide at its tip. Does this match the lesson's proportional guidance that a branch is about half the trunk width at the join and narrows to about a third of that at the tip?

Answer: Yes. The join width is 0.4 cm, which is half of 0.8 cm. The tip width is 0.15 cm, which is close to one third of 0.4 cm, about 0.13 cm.

Reason: Half of 0.8 is 0.4. One third of 0.4 is about 0.13, and 0.15 is close enough for a hand drawing.

Check: Measure the trunk at the join, the branch at the join, and the branch at the tip; compare the ratios.

Draw a Eucalyptus Tree: Sickle Leaves and Peeling Bark

Source rubric / reflection

- [ ] Trunk is slender and tapers gradually from base to first branch.
- [ ] At least two branches rise at shallow angles and curve outward.
- [ ] At least two leaf clusters are present, each with three to five leaves.
- [ ] Each visible leaf has two edges curving in the same direction and a pointed tip.
- [ ] At least three bark strips follow the trunk taper, with one edge attached and one curling away.
- [ ] Contrast distinguishes strip edges and the shadow side without filling the lighter layer.
- [ ] Valid alternatives are accepted if the sickle curve, taper, and strip construction are deliberate and checkable.

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