Drawing the Mayflower: Hull and Rigging Construction

Original tasks 1, 2, 3 / complete keys

Task 1

On paper 20 cm by 25 cm, draw a hull outline with a hypothetical length of 14 cm and height of 4 cm. Mark a waterline and deck line. Place three mast positions at 3 cm, 7 cm, and 11 cm from the bow. Do not add rigging yet.

Answer: A closed curved trapezoid hull with a waterline near the lower third and a deck line above it. Three crosses on the deck line at the stated distances.

Reason: Separating hull and mast placement makes proportion checkable before rigging.

Check: Measure the hull length and height with a ruler and confirm the three mast marks are on the deck line.

Task 2

Using the hull from the first exercise, draw three masts as vertical lines. Make the mainmast 12 cm, foremast 10 cm, and mizzenmast 8 cm as hypothetical examples. Add one yard near the top of each mast.

Answer: Three vertical masts of the stated heights with short horizontal yards near their tops.

Reason: Vertical masts and yards establish the rigging frame.

Check: Check that each mast starts on the deck line and that yard lines are horizontal.

Task 3

Add rigging to the previous drawing: two shrouds per mast to the hull sides, a forestay from the foremast top to the bow, and a backstay from the mizzenmast top to the stern. Keep lines straight.

Answer: Six shroud lines, one forestay, and one backstay, all attached at logical points without crossing the hull outline except at attachments.

Reason: A limited rigging plan keeps the outline readable and checkable.

Check: Trace each line from mast top to attachment and confirm each shroud attaches at a hull side and does not cross the hull interior except at its attachment.

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Original tasks 4 / complete keys

Task 4

Label the hull, waterline, foremast, mainmast, mizzenmast, shrouds, forestay, and backstay. Use the x-height convention and keep labels readable. Then erase construction lines.

Answer: Readable labels placed near the correct parts, with lowercase letters measured from baseline to midline. Construction lines are erased.

Reason: Labels test understanding of parts and the convention allows valid letter-style alternatives.

Check: Confirm each label points to the correct part and that lowercase x-height is consistent from baseline to midline.

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Source rubric / reflection

- [ ] Hull outline is a single closed shape with a clear waterline and deck line.
- [ ] Three masts stand on the deck line at logical spacing.
- [ ] Rigging includes two shrouds per mast attached to the hull sides, plus a forestay to the bow and a backstay to the stern.
- [ ] Labels are readable and follow the x-height convention; valid letter-style alternatives are accepted.
- [ ] Construction lines are erased and the drawing is clear without overcrowding.

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