# Quadrilateral Art & Construction Project

*Mr. Merrick · January 28, 2026*

**What is this project?**

You will create an art piece that includes a geometric construction of your own design and clearly shows the properties of that quadrilateral.

**Step 1:** Choose ONE quadrilateral
Examples: square, rectangle, parallelogram, rhombus, trapezoid, kite, etc.

**Step 2:** Create Your Construction
Your construction must:

- be done using a straightedge and compass,
- have clearly labeled vertices (ex: $A, B, C, D$),

You should show and label:

- side lengths or equal sides,
- interior angles or angle relationships,
- parallel and/or perpendicular sides (if they exist),
- diagonals (if they help show properties).

**Step 3:** Create the Art Piece
Your final art piece must include:

- your final construction diagram,
- a clear list of properties of your quadrilateral,
- math markings (tick marks, arrows, angle arcs),
- colour or design that does not hide the math.

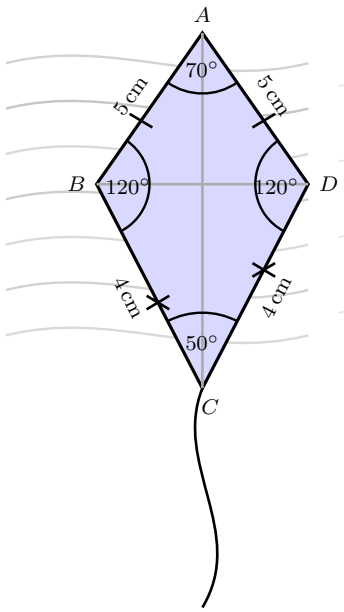
**Checklist**

☐ I chose one quadrilateral and named it clearly.
☐ My construction is neat and accurate.
☐ All vertices are labeled.
☐ Properties are clearly shown and explained.
☐ Math markings are correct and easy to see.
☐ My art enhances the math (it does not cover it).

# Art Critics

Here is an example of a 'quadrilateral piece' from this project:

## Kite




### Properties:

- $AB = AD$ and $BC = CD$ (two pairs of equal adjacent sides)
- diagonals are perpendicular
- one diagonal bisects the other
- line of symmetry along $\overline{AC}$ (for this kite)

**Art Critics: How could this piece be improved?**

- Add more artistic elements (backgrounds, patterns, colour) without hiding the math.
- Label and measure the diagonals to better communicate the geometry.
- Add more mathematical information directly on the kite (for example: "kite $ABCD$", $AB = AD$, $BC = CD$, symmetry line).
- Include additional markings to highlight relationships (right-angle symbols, midpoint marks, congruency marks).
- Adjust spacing or layout to make the information even clearer.
- Identify one more correct property of a kite that is not currently shown.