

Wing Evaluation Matrix

Name:

Date:

Period:

How to Use This Matrix

An evaluation matrix helps engineers compare their design ideas fairly using the same criteria for each design. Write your design names in the columns below, then rate each design idea from 1–5 on each requirement (1 = does not meet requirement, 5 = fully meets requirement). Add up the scores to see which design rates highest overall.

Note: A high score does NOT guarantee a good design — use this as one tool, not the final answer.

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STUDENT HANDOUT 4

Wing Design Evaluation Matrix				
Requirement	Design 1 (name: _____)	Design 2 (name: _____)	Design 3 (name: _____)	Design 4 (name: _____)
Fits the fuselage wing slot (yes/no — designs that don't fit are eliminated)				
Likely to improve on baseline distance (based on what they know from the Data Challenge and physics reasoning)				
Feasible to fabricate — can we actually build this from cardstock? (1–5)				
Both wings are symmetric (equal)				
Design confidence — how confident am I that this shape will outperform the baseline? (1–5)				
TOTAL SCORE				

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- 1. Which design scored highest? Does your team agree this is the best choice? Why or why not?**
- 2. Are there any requirements that were hard to rate? Why?**
- 3. Which design will your team build? (It does not have to be the highest score — explain your reasoning.)**