THE STANDARD

Evaluating Design Solutions

Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

ANCHORING PHENOMENON

Three Lunchboxes, One Lunch

Same sandwich, same ice pack, same gym class day. Three different lunchboxes. A plain insulated lunchbox, a regular cloth bag, and an insulated lunchbox with a built-in cooling gel pack. By lunch, the sandwich in the cloth bag is room temperature. The other two are still cold, but one is heavier and cost three times as much. Which one is "best"? Students will argue about that all week.

DRIVING QUESTION

"How do you decide which design is best when each one wins on different things?"

INVESTIGATIVE 1

The Bridge Bid

A city needs a new bridge across a river. Three construction companies submit proposals. Company A: cheapest, finishes fast, expected lifespan 30 years. Company B: most expensive, beautiful, lifespan 80 years. Company C: mid-range cost, 50-year lifespan, lowest expected traffic disruption during construction. The city council has to pick one. Use this to sharpen the trade-off lens the anchor is pushing on: the cheapest option isn't automatically the best, and "best" depends on the criteria the council weighs heaviest.

DRIVING QUESTION

"If the council picks the cheapest bridge to save tax money, what could that cost the city over 30 years?"

INVESTIGATIVE 2

Two Product Reviews, Same Product

Two online reviews of the exact same wireless earbuds. Reviewer A gives them 5 stars, focusing on sound quality and battery life. Reviewer B gives them 2 stars, focusing on price, comfort during long use, and microphone clarity for calls. Same product, opposite verdicts. The difference isn't the product. It's the criteria each reviewer used. Same idea as the anchor, only smaller: change the criteria, change the winner.

DRIVING QUESTION

"How can two people evaluating the exact same product reach opposite conclusions?"