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.

DCI
DISCIPLINARY CORE IDEA

ETS1.B · Developing Possible Solutions

> *There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem.*

Once you've nailed down the criteria and constraints, you almost always end up with more than one possible design. Evaluation is how you decide which one actually wins. It's not a vibe check. **It's a systematic process: score each design against each criterion, line up the trade-offs, and let the data point at the best fit.**

SEP
SCIENCE & ENGINEERING PRACTICE

Engaging in Argument from Evidence

> *Evaluate competing design solutions based on jointly developed and agreed-upon design criteria.*

Students aren't picking the design they personally like. They're arguing from evidence. Each design gets rated against agreed-upon criteria, the scores get compared, and students defend a choice using the numbers and the trade-offs. The argument is the whole point. **If they can't justify it, they haven't done the work.**

CCC
CROSSCUTTING CONCEPT

Influence of Science, Engineering, and Technology on Society and the Natural World

> *All human activity draws on natural resources and has both short and long-term consequences, positive as well as negative, for the health of people and the natural environment.*

Every design decision sends ripples outward. The lunchbox a company picks affects what gets bought, what materials get used, what ends up in a landfill. Students see that "best design" isn't just a classroom call. **It shapes what people use, what the environment absorbs, and what gets made next.**