

Engineering Fair Project Guidelines

Engineering Fair Boards

The school will have boards available for purchase soon at \$4each.

Abstracts

Abstract required for Middle School, not required in K-5th
Engineering Notebook required for Middle School.

Typed vs. Hand Written

K-2: hand written is fine
3rd – 5th: Typed words required. Charts and graphs can be hand drawn.
Middle School: all typed, including charts, data tables, and graphs

Metric vs. English Units

K-5th: Either one is fine. Use the same through-out project
Middle School: must be metric / SI

Engineering Fair Dates

All projects due at school Wednesday, Feb. 17th 8am.
Judging is Wed. & Thurs. afternoons, Feb. 17&18th.
No parents or students in the gym at this time.

Awards

SH Award Ceremony will be Thursday, Feb. 18th, at 6:30pm.
Awards of one (or two!) Best in Show and multiple First, Second, Third places, and Honorable Mentions (by grade and/or engineering category) will be given based on a judging rubric using the Engineering Design Process.
A Best in Show, 1st, 2nd, 3rd, and Honorable Mention (one of each) will be given for Project Board Artistic Design.

Top 10% of projects (based on numerical grade) will be invited to Tri-City College Prep High School for Northern Arizona Regional Fair.

Projects brought to Tri-City on February 25th.

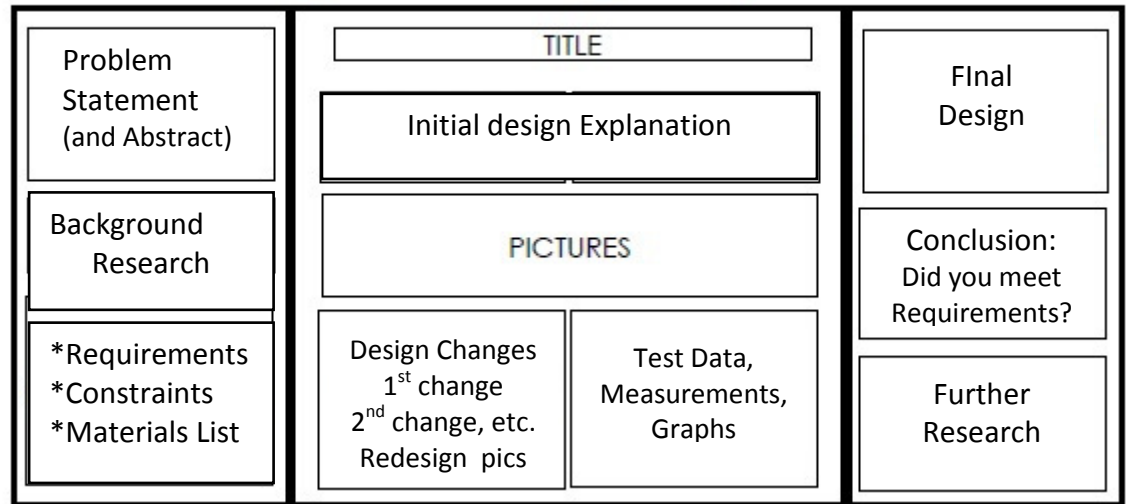
Awards Ceremony on Friday, February 26th, 5pm.

Project Categories – applying the engineering design method to:

- Biomedical Engineering: make an aid to diagnosis or therapies in healthcare
- Engineering Mechanics: build something that moves
- Chemical Engineering: make a chemical reaction bigger, faster...
- Environmental Engineering: solves an environmental problem
- Materials Science: improve the characteristics of a material so it is better to use (softer, stickier, bendable, etc.)
- Robotics: build something that does a human task
- Energy Systems: make it generate energy! (hydro, wind, heat, solar)
- Software Engineering: code sw that interacts with a human

<https://student.societyforscience.org/intel-isef-categories-and-subcategories#ENMC>

Engineering Projects Board Layout



A great on-line resources for engineering fair information and ideas is

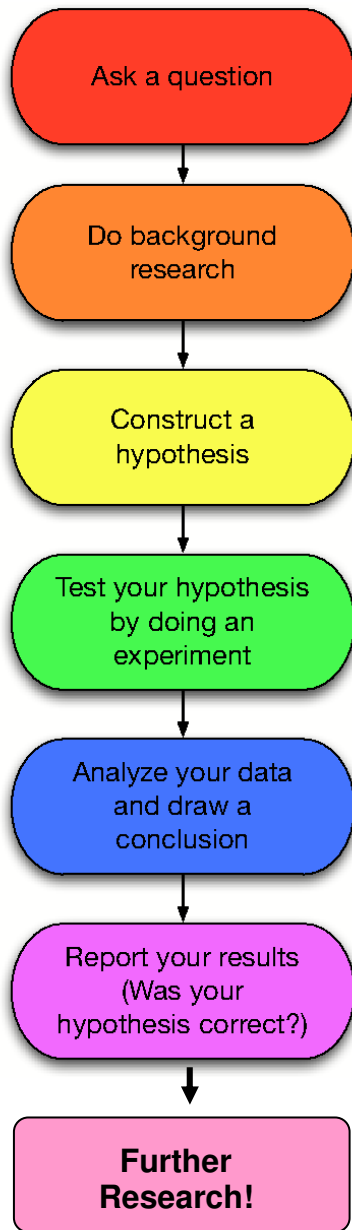
*ScienceBuddies.org

*student.societyforscience.org

*Education.com/science-fair/engineering/

Scientific Method vs. Engineering Design Process (Tests vs. Iteration)

The Scientific Method



ENGINEERING DESIGN PROCESS

