

# Science & Engineering Fair – Getting Started

Science OR Engineering project accepted

Team projects allowed (2-3 people), students must be from same grade

Pick something that interests you

Resources

Science Buddies [www.sciencebuddies.org](http://www.sciencebuddies.org)

Education.com <http://www.education.com/science-fair/>

Brain Pop <https://www.brainpop.com/science/scientificinquiry/>

Salt Lake Valley Science & Engineering Fair [www.slvsef.org](http://www.slvsef.org)

# Project Criteria

HUMAN Subjects – BEFORE begin experiment, must get signature from doctor, PA or RN

Animal Subjects – must get a vet's signature before begin experiment

NO biological hazardous agents, such as molds, bacteria, viruses, bodily fluids

NO open flames, dangerous or illegal chemicals, explosives

Select project that is unique and measurable

Avoid subjective evaluation

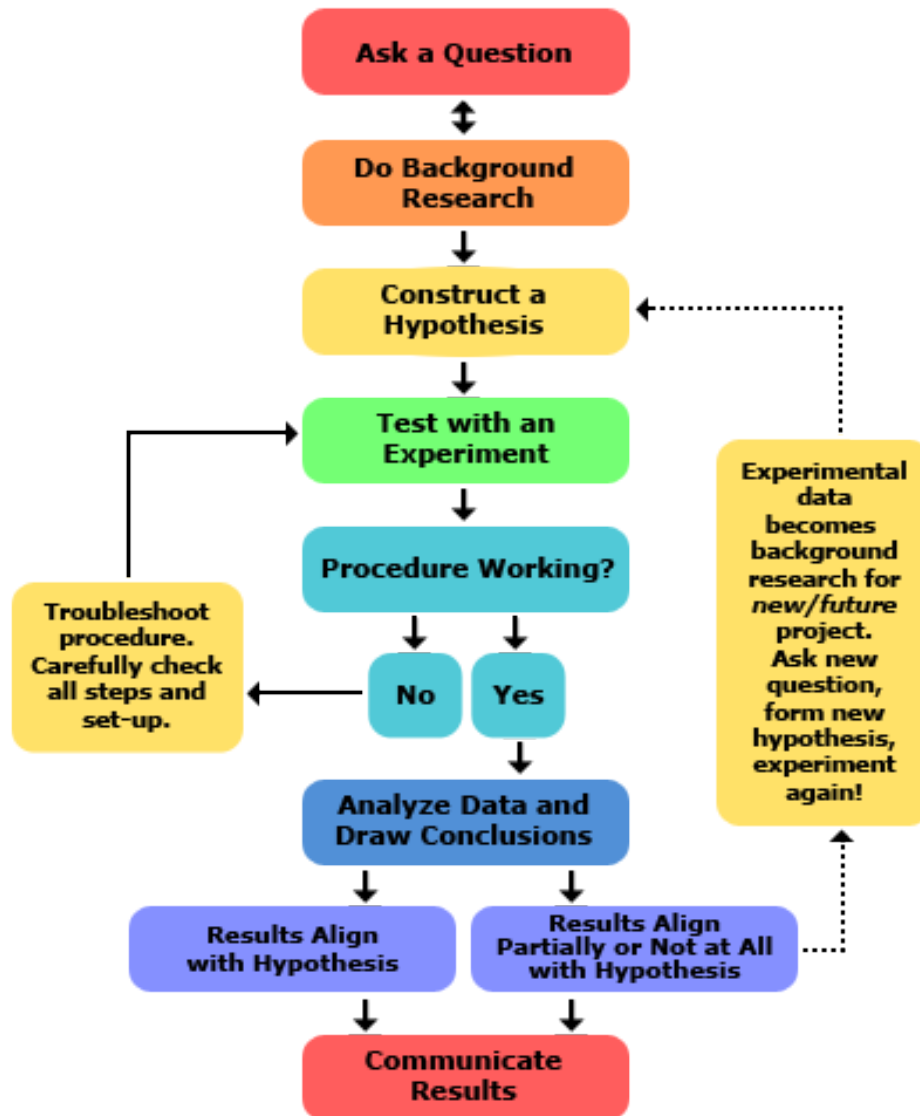
- Effect of music, talking, different liquids, etc... on plants
- “Which is best?”, e.g. which popcorn pops better, which paper towel is most absorbent, which soda tastes better, etc...

Stay away from “projects” that don't follow the scientific or engineering methods

- Baking soda & vinegar volcano (observation)
- Diet coke & Mentos (observation)
- Optical illusions (observation)
- The solar system (research / model)

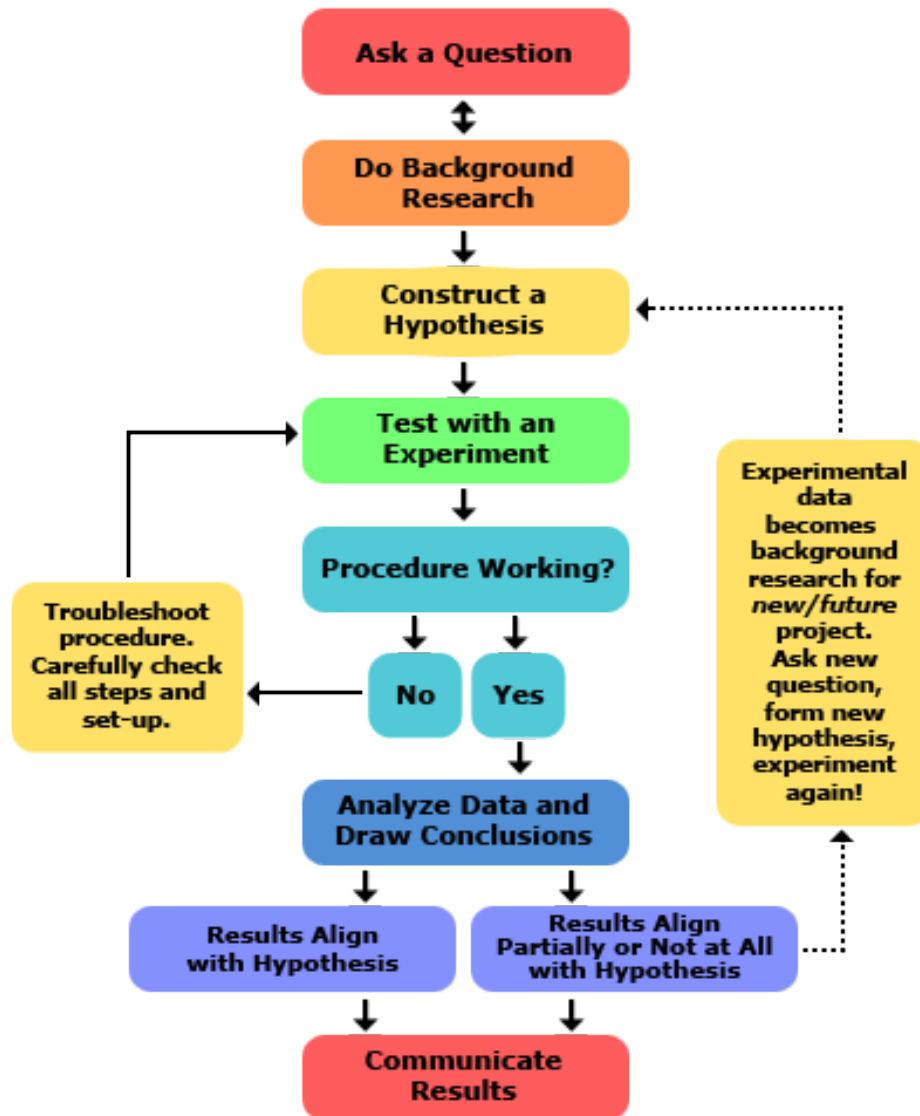
# Science vs. Engineering projects

## Scientific Method

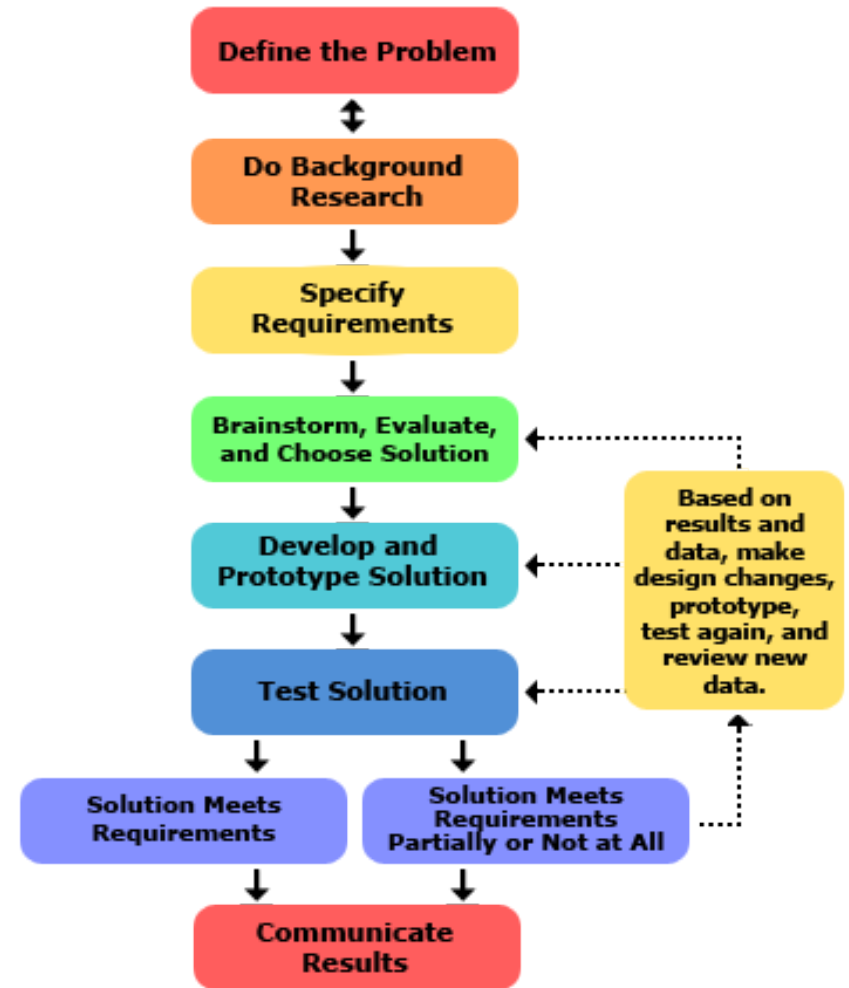


# Science vs. Engineering projects

## Scientific Method



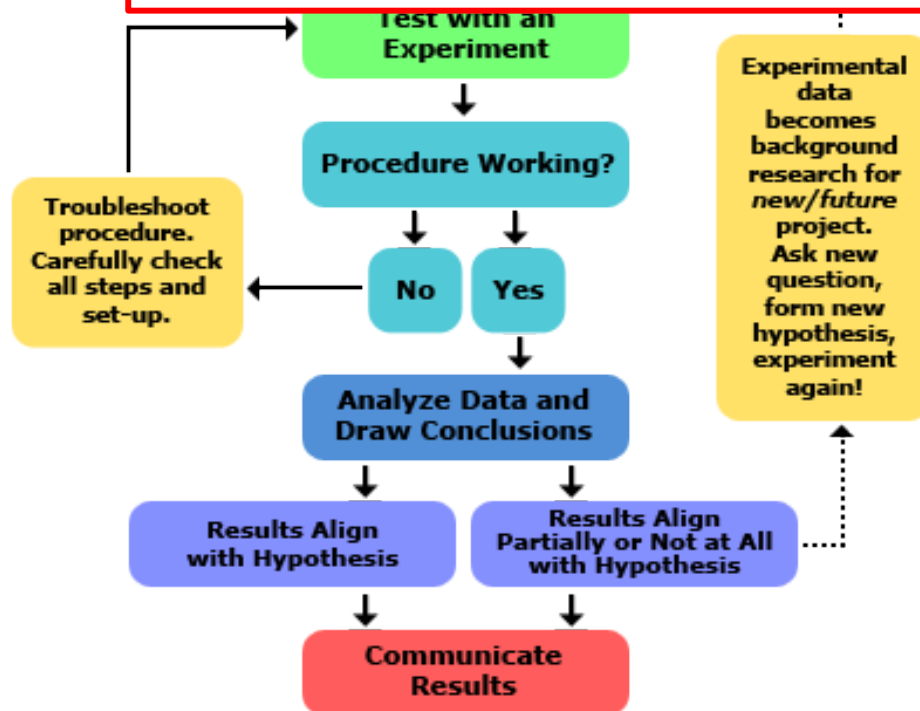
## Engineering Method



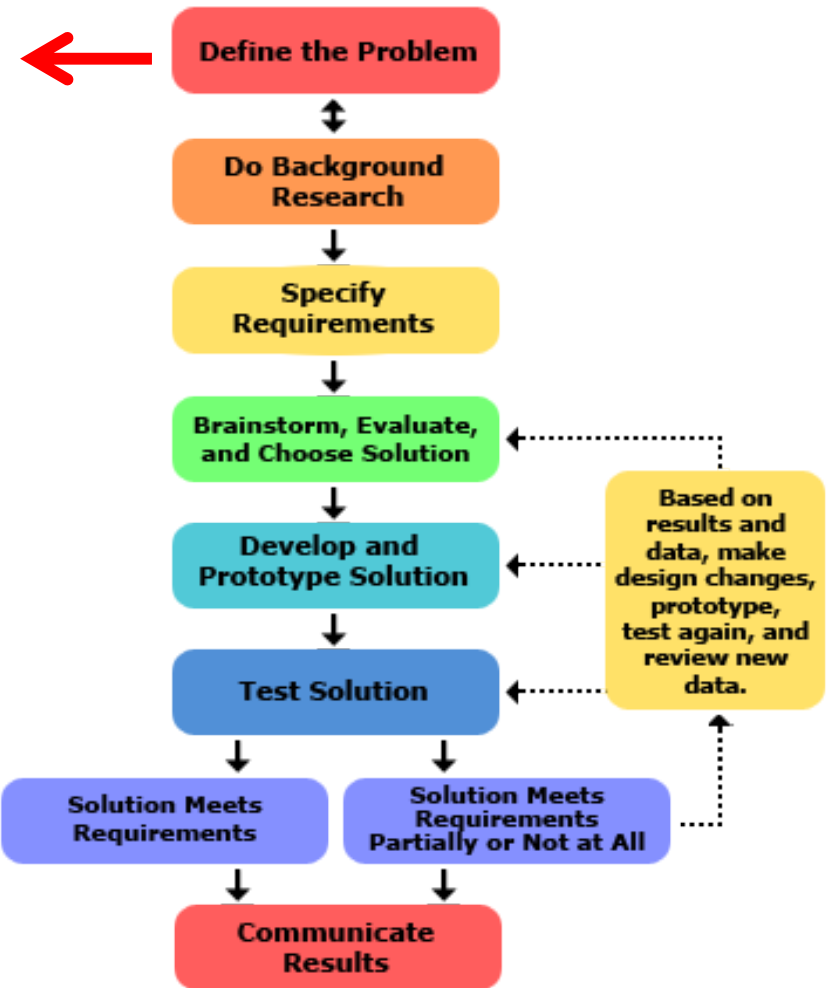
# Science vs. Engineering projects

## Scientific Method

**What is the problem or need?  
Who has the problem or need?  
Why is it important to solve?**

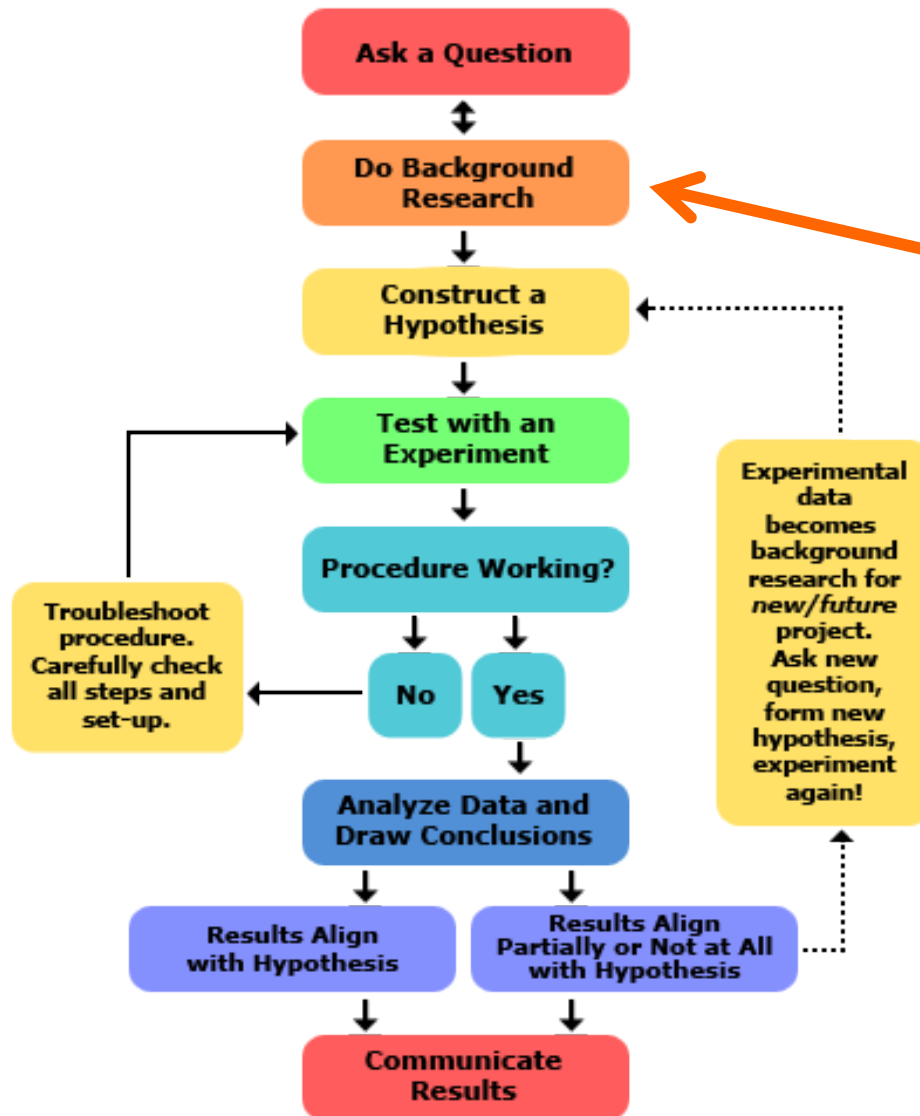


## Engineering Method

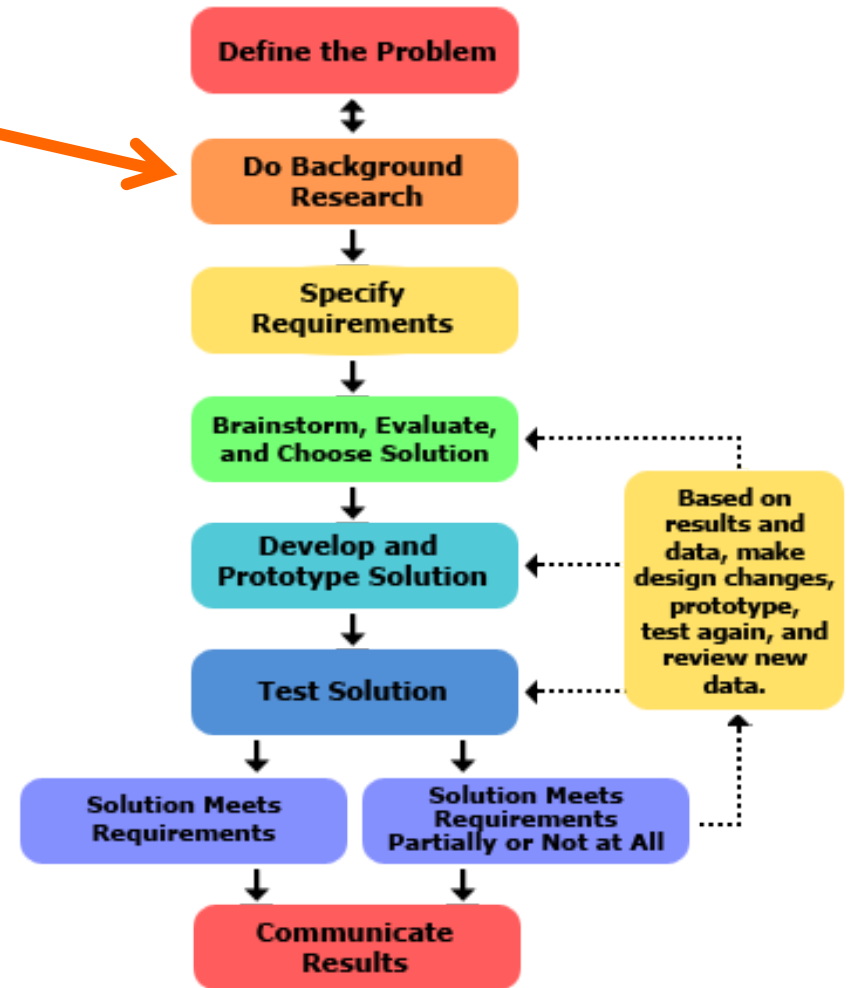


# Science vs. Engineering projects

## Scientific Method

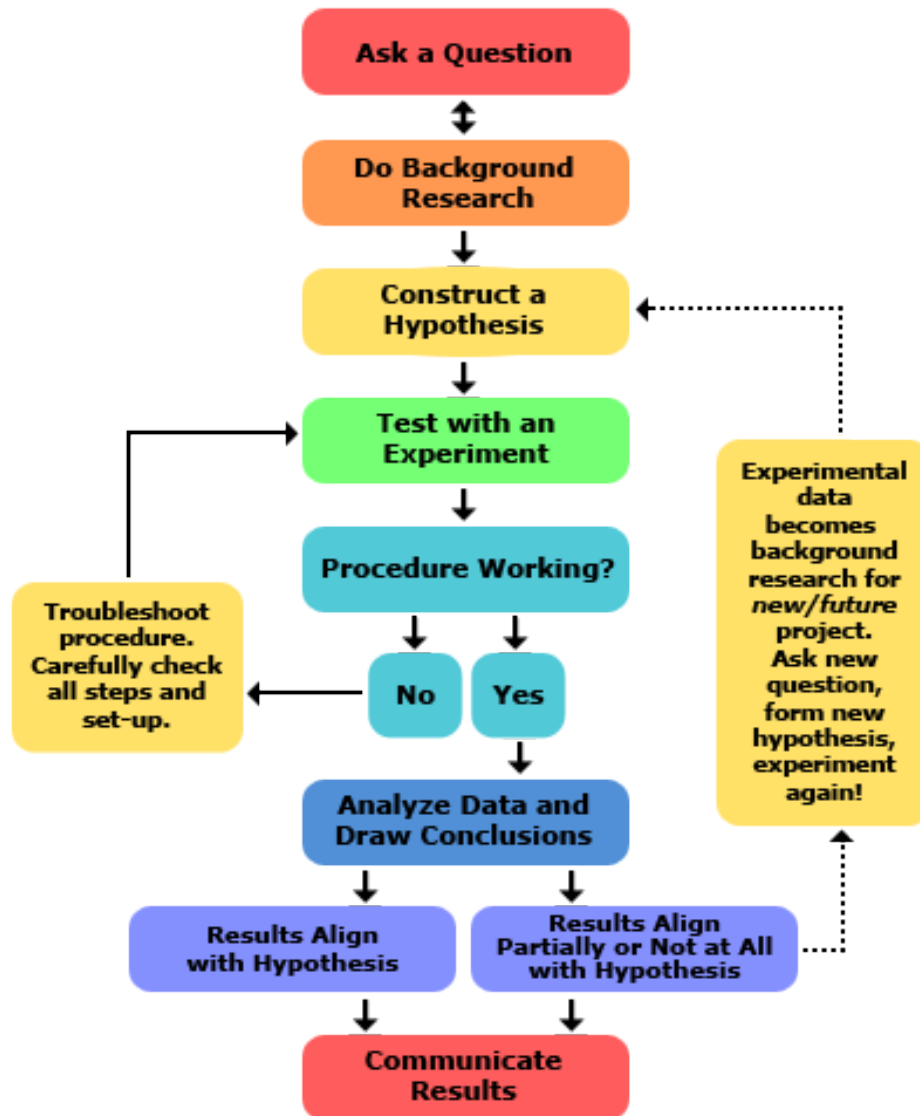


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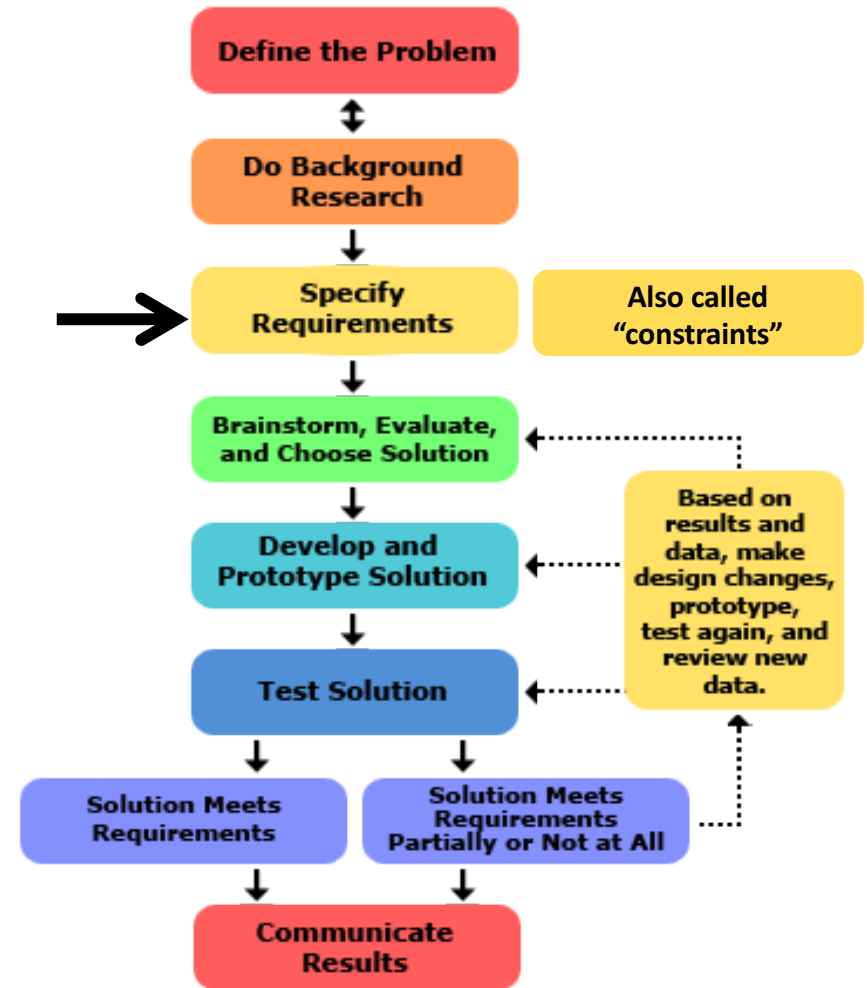


# Science vs. Engineering projects

## Scientific Method

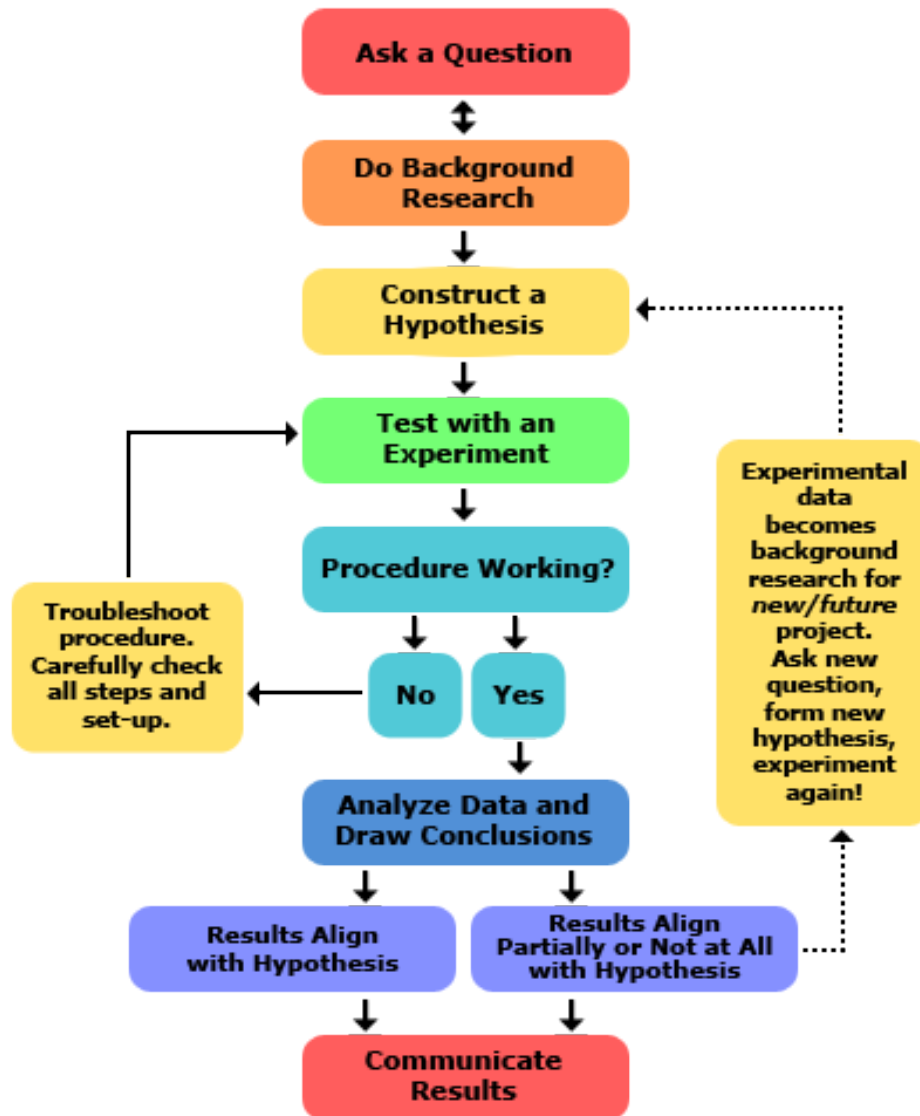


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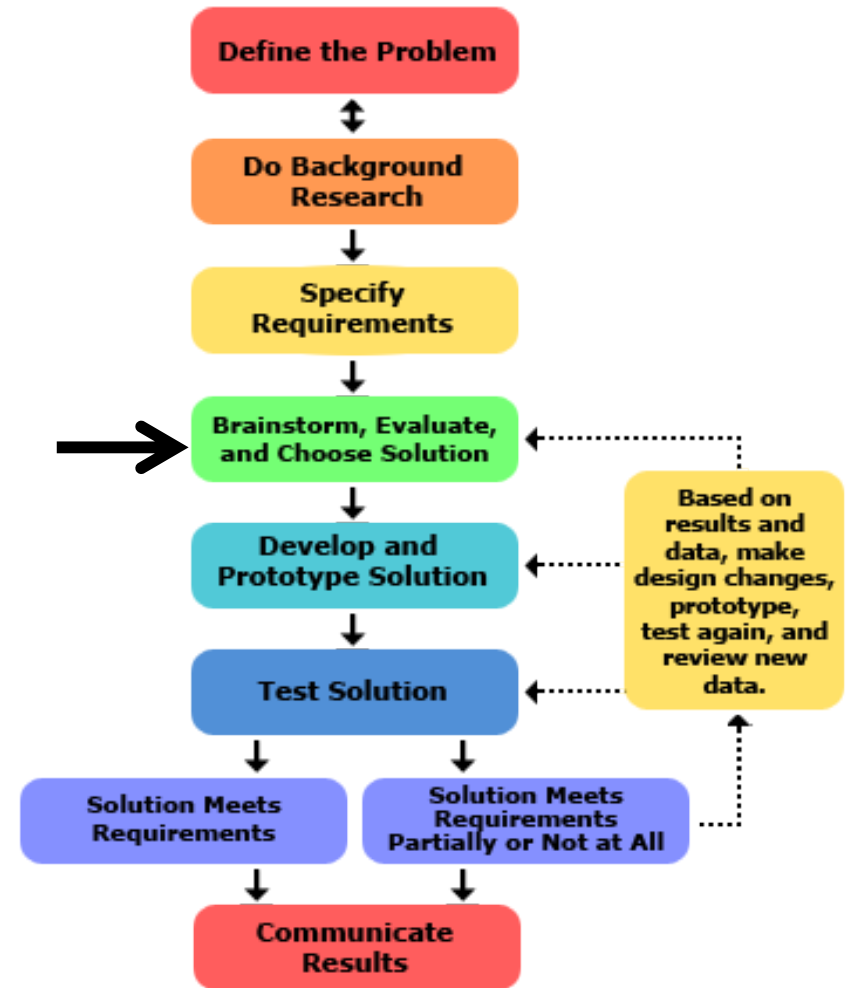


# Science vs. Engineering projects

## Scientific Method



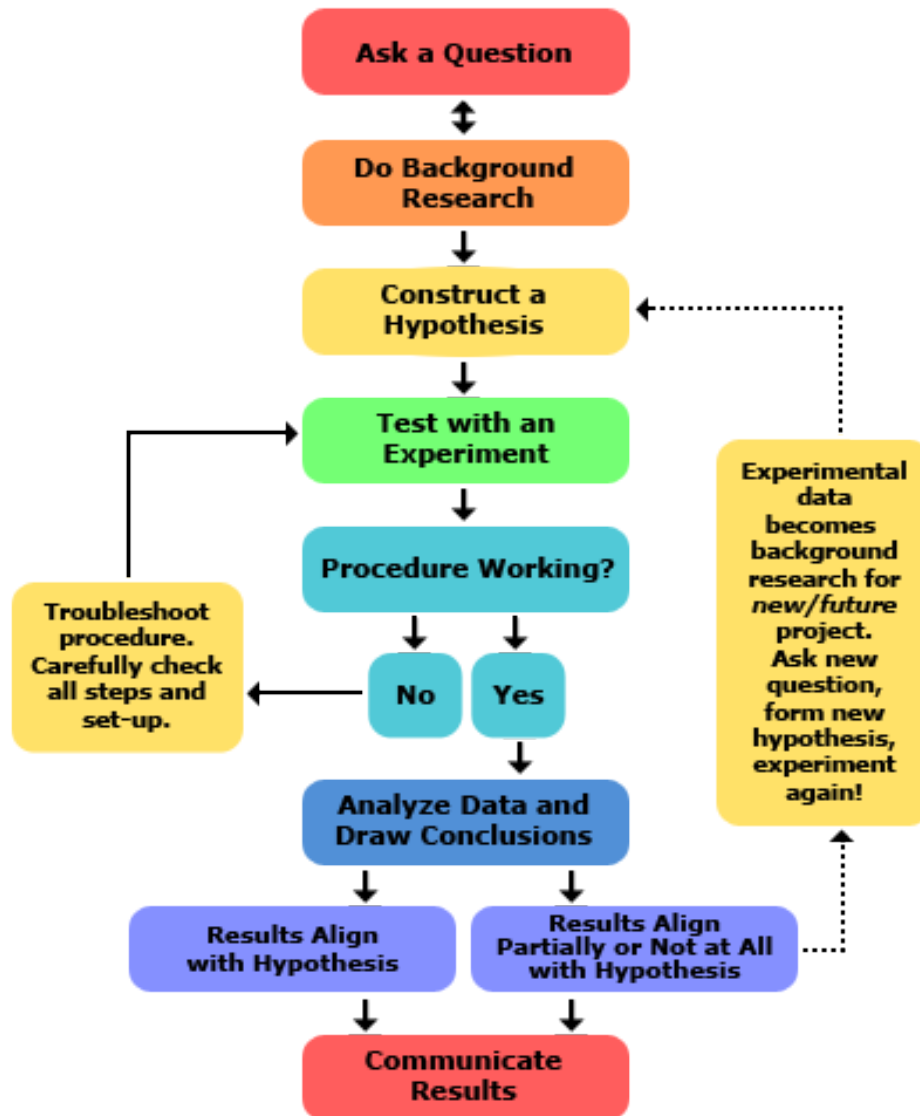
## Engineering Method



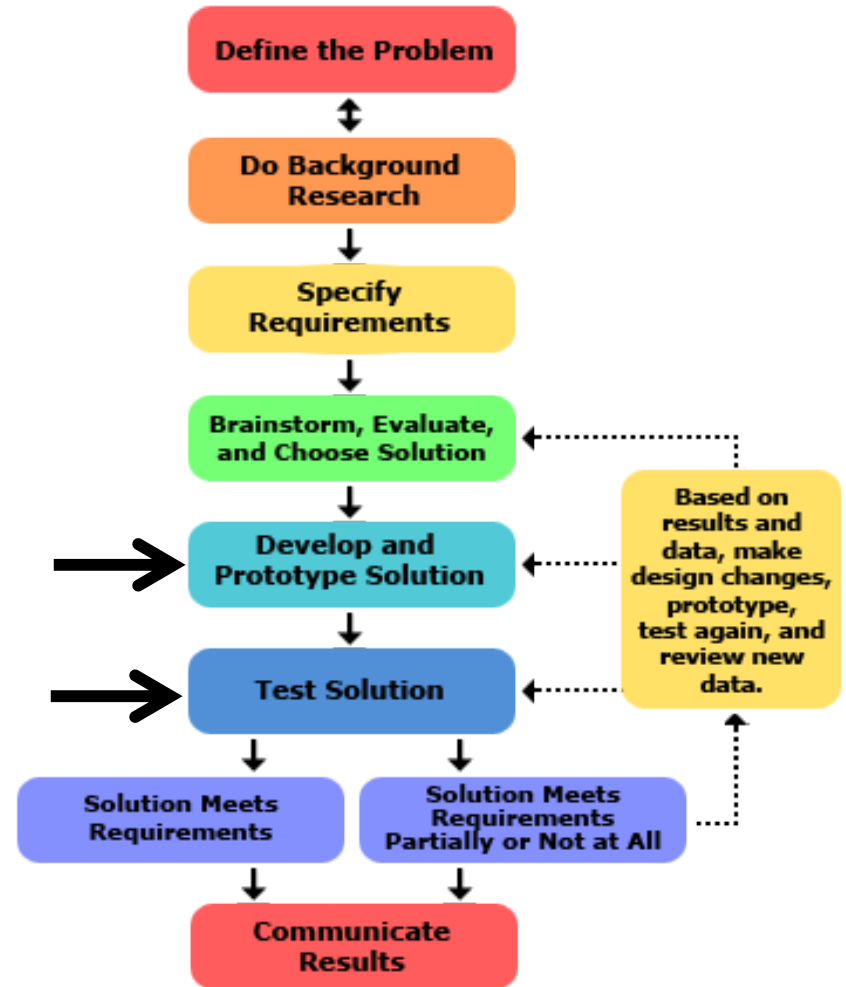


# Science vs. Engineering projects

## Scientific Method

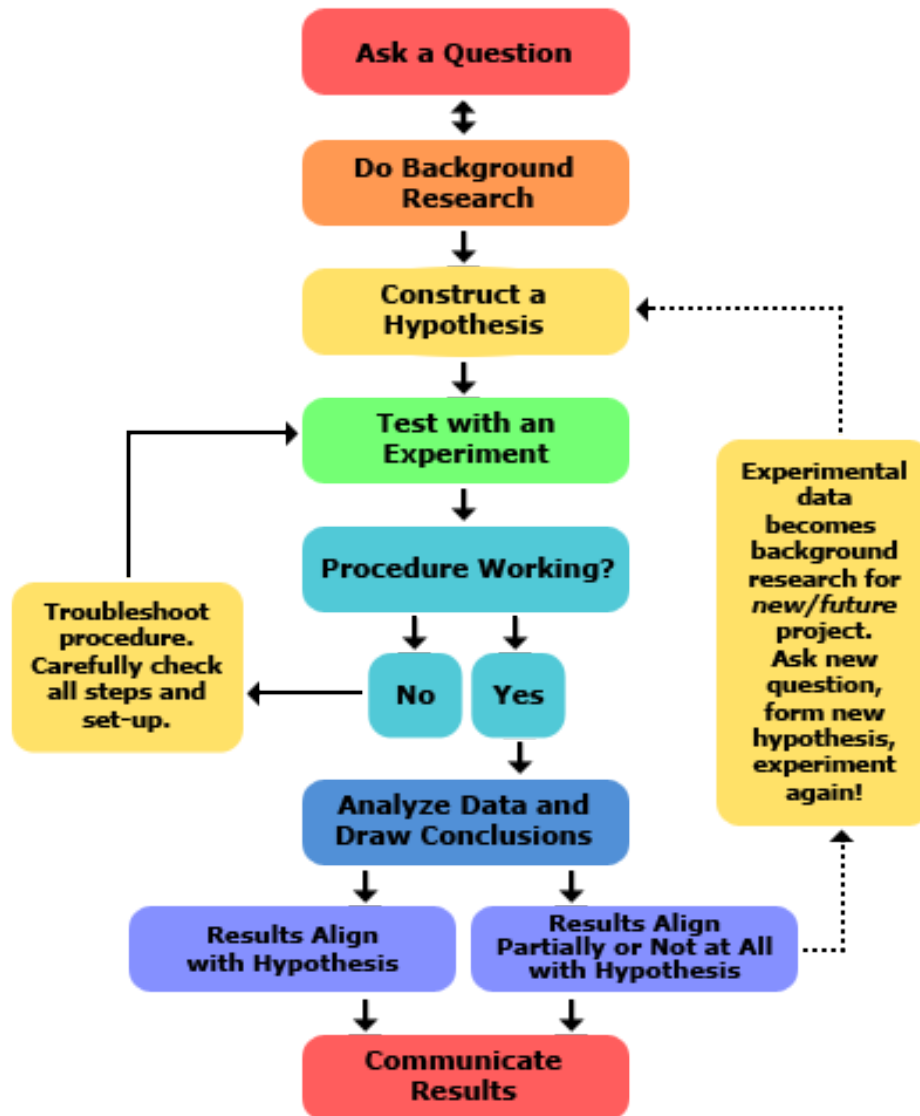


## Engineering Method

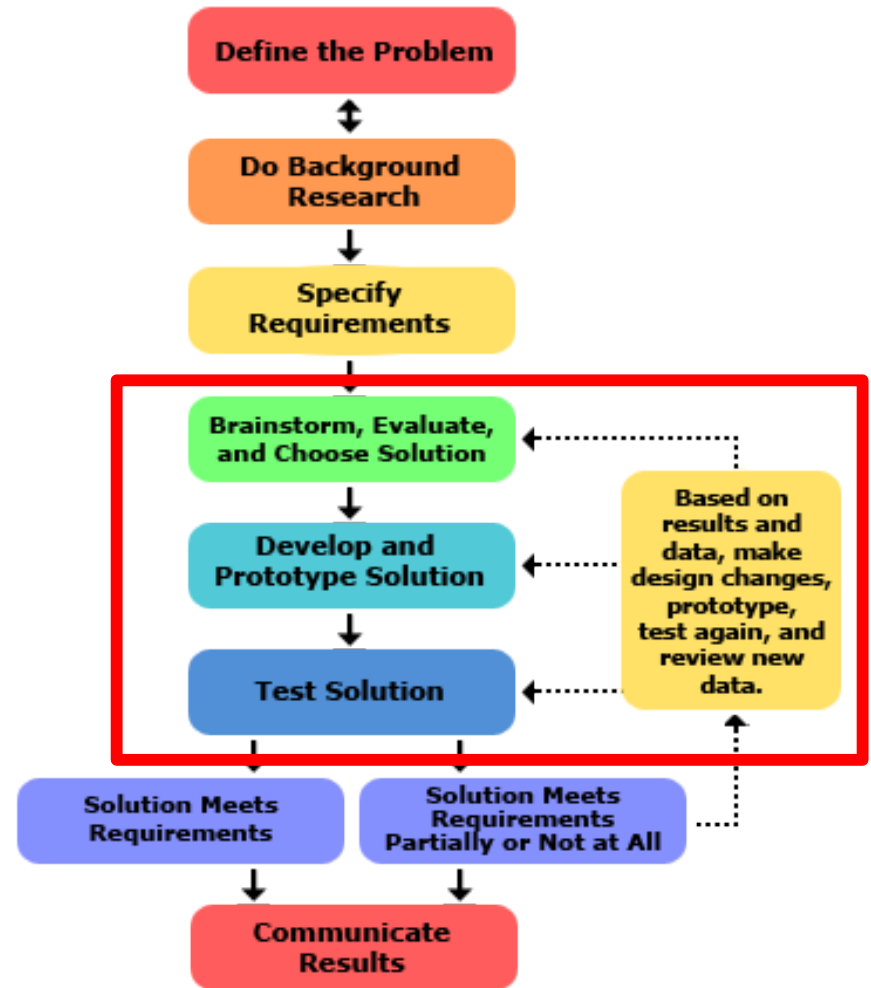


# Science vs. Engineering projects

## Scientific Method

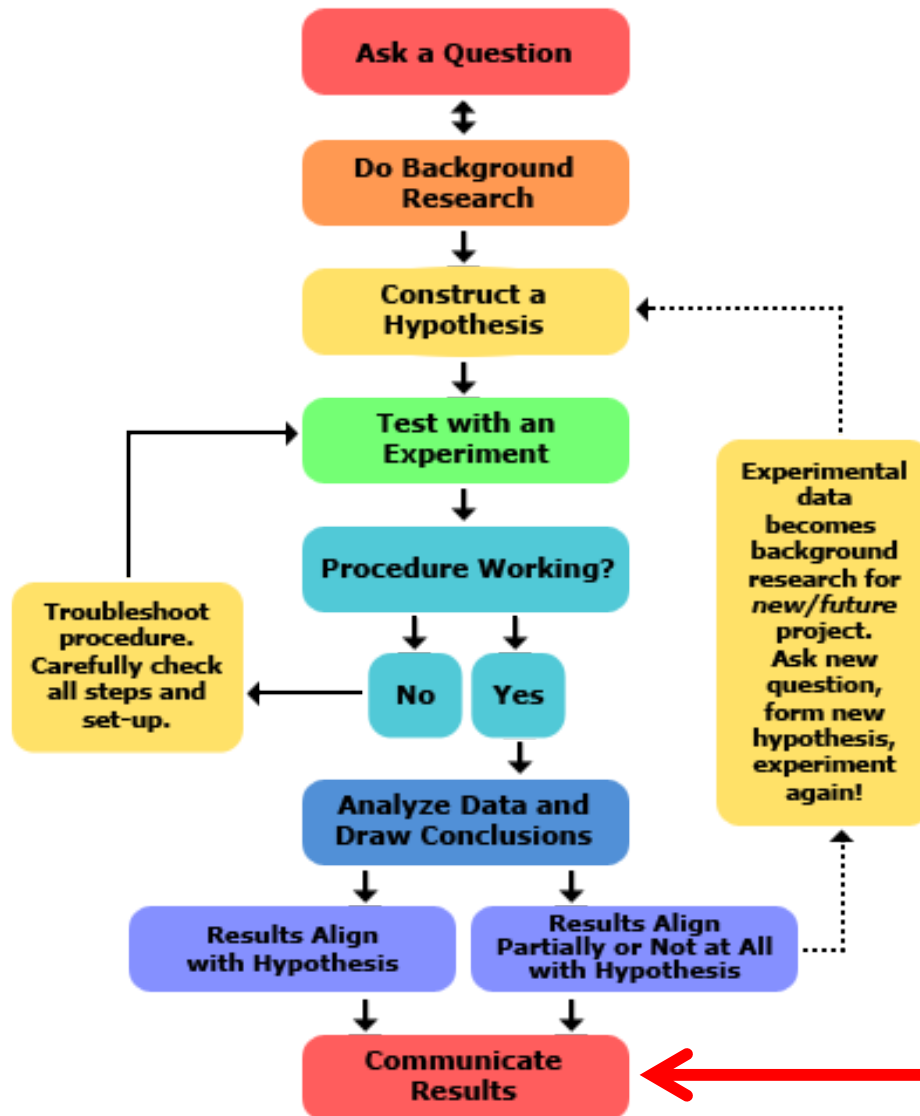


## Engineering Method

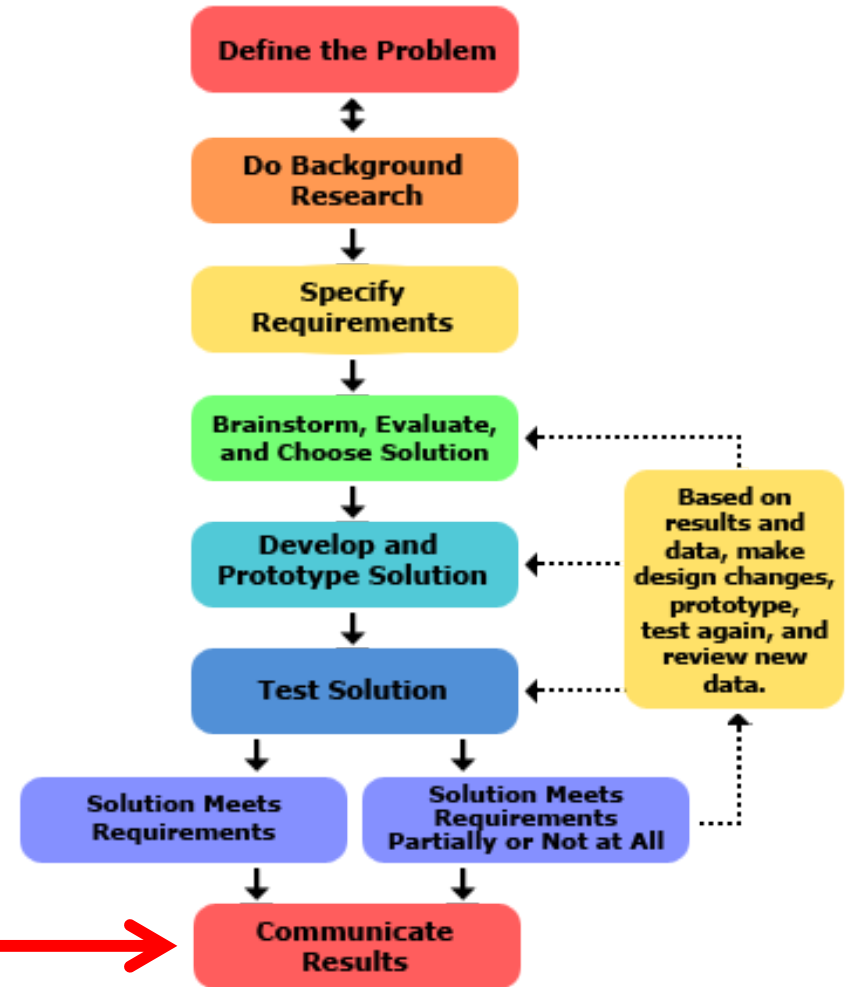


# Science vs. Engineering projects

## Scientific Method



## Engineering Method



# Project Documentation

Keep a notebook/journal:

Required for district fair

Keep all notes/records and next steps

Needs to be clear, so that others/judges can follow your thoughts

Draw pictures and tape things in it that are important, like photos

Do not erase things or remove pages, cross out things and make notes

All entries should be dated

All entries must be legible and in ink

Keep track of research references (note: Wikipedia is not acceptable, you may use Wikipedia to identify primary and other sources, but then use and cite those)

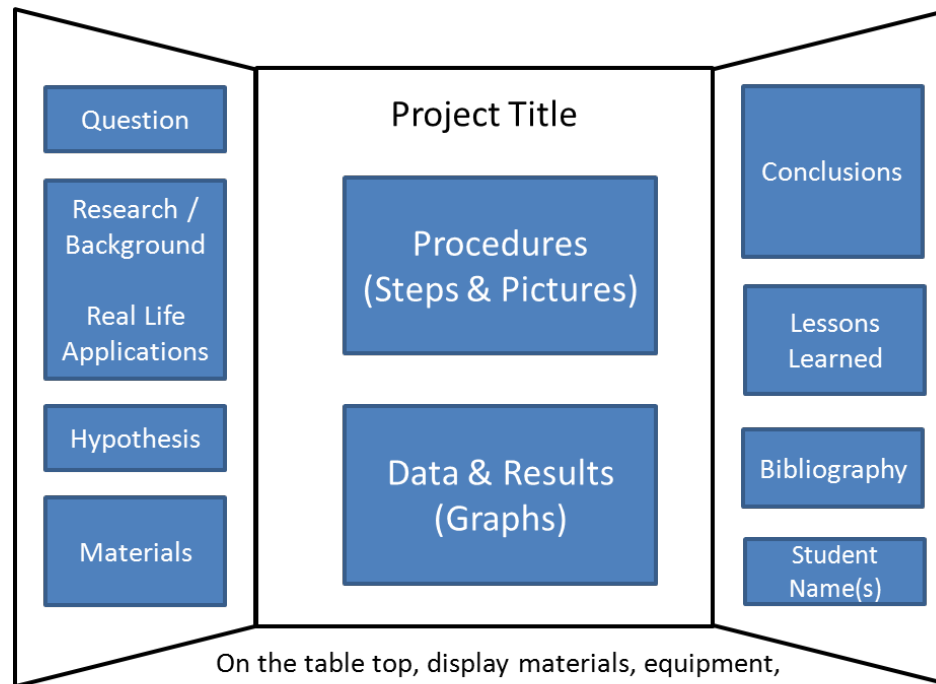
# Project Display

Exhibits must be self-standing

No larger than 36" wide x 36" high x 24" deep  
(this is an opened 48" wide x 36" high trifold)

Explains project in a clear, concise, logical way using KEY POINTS

Neat & readable - use tables, graphs & charts to present data



On the table top, display materials, equipment, samples and other items from your investigation

# Project Presentation & Judging

Prepare to present approximately 5 minutes

Be ready to answer questions

Know your project and show your enthusiasm

Look the judge in the eye, speak clearly

Use props to demonstrate your experiment, if possible

Reference results, tables and graphs

Don't read the poster

Practice your presentation in front of someone before the fair



# Schedule

Engineering Design: Mr. Matthews, Monday October 17, 1:30-3:00 PM

Scientific Method Demonstration: Ms. A, Tuesday, October 18, TBD

Turn in Project Definition Worksheet: Tuesday, October 25

Mrs. Hoots and Ms. A help fine tune project definitions: Oct 26-27, 2:00 – 3:00 PM

Complete Salt Lake Valley Form: 1<sup>st</sup> week of November

In class registration: Tuesday, November 1, 2:15 PM

Project mentoring: December 5-9

Science Fair: Wednesday, January 18

PC District Fair: Friday, February 10

SLVSEF: March 21-22