

Science Fair

Steps to Success

[Click here for Canva link.](#)

Formal Report Examples:

[5th Grade Example](#)

[6th Grade Example](#)

[7th Grade Example](#)

[8th Grade Example](#)

Click images for additional resources.



Think Like a Scientist
5E Inquiry Unit

Pick one photo! Generate one question you have about that photo.

Understanding the Nature of Science

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Science Fair

Steps to Success

SCIENCE & ENGINEERING FAIR Toolkit

- 1 UNDERSTANDING SCIENCE
- 2 ASK A TESTABLE QUESTION
- 3 RESEARCH
- 4 FORM A HYPOTHESIS
- 5 DESIGN & TEST EXPERIMENT
- 6 ANALYZE DATA
- 7 DRAW CONCLUSIONS
- 8 COMMUNICATE RESULTS

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SCIENTIFIC METHOD

ENGINEERING DESIGN

OR

ASKING A QUESTION?

IDENTIFYING A PROBLEM?

YES

YES

RESEARCH

RESEARCH

CREATE A HYPOTHESIS TO PREDICT THE ANSWER

BRAINSTORM WAYS TO USE AVAILABLE MATERIALS & MEET THE CONSTRAINTS

DESIGN AN EXPERIMENT

DO YOU NEED A NEW TOOL OR PROCESS TO COLLECT THE DATA?

DO YOU KNOW HOW THE MATERIALS WORK?

YES

NO

YES

NO

HYPOTHESIS NOT SUPPORTED BY RESULTS

COLLECT DATA

DESIGN AND MAKE A SKETCH OF YOUR IDEA

BUILD

TEST DESIGN

FAIL!

HYPOTHESIS SUPPORTED BY RESULTS

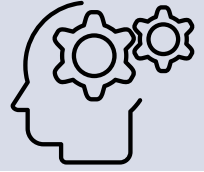
PASS!

SHARE RESULTS!

SCIENCE FAIR: STEPS FOR SUCCESS

1

UNDERSTANDING SCIENCE



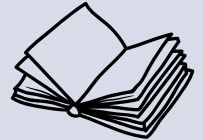
2

ASK A TESTABLE QUESTION



3

RESEARCH



4

FORM A HYPOTHESIS



5

DESIGN & TEST EXPERIMENT



6

ANALYZE DATA



7

DRAW CONCLUSIONS

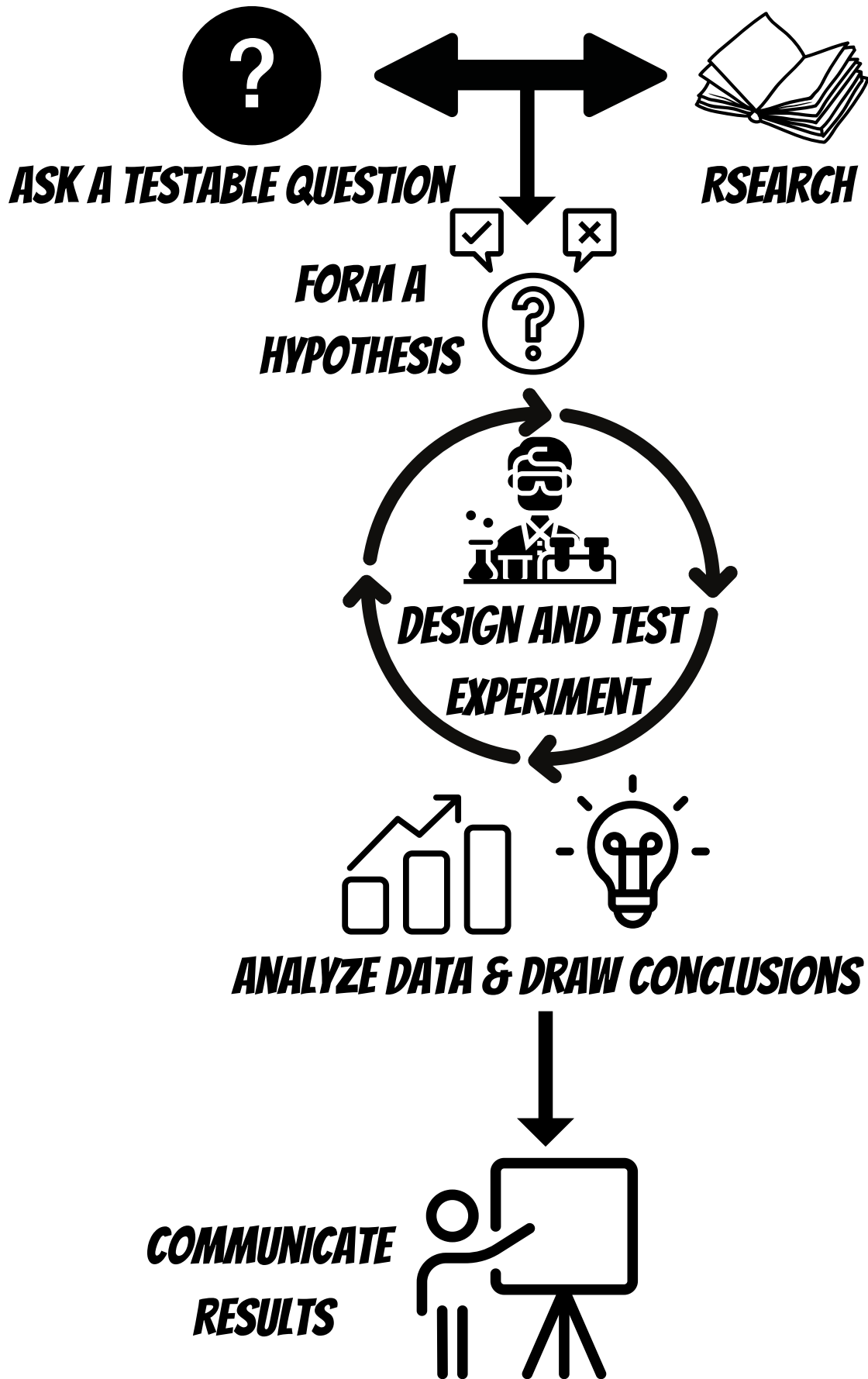


8

COMMUNICATE RESULTS



SCIENCE FAIR: STEPS FOR SUCCESS



ENGINEERING FAIR: STEPS FOR SUCCESS

1

DEFINE A NEED OR PROBLEM



2

RESEARCH



3

DESIGN CRITERIA & CONSTRAINTS



4

DESIGN

Preliminary & Final Design



5

BUILDING A PROTOTYPE



6

TEST & EVALUATE



7

ANALYZE DATA

Make Design Changes & Retest



8

DRAW CONCLUSIONS



9

COMMUNICATE RESULTS

