Something to Think About…

"Children need to explore and to discover. This is how you innovate; you fail your way to your answer. Scientists fail all the time; we just brand it differently. We call it data."

-Anissa Ramierez

Questions are the ENGINE that drive Science and Engineering

Science asks:

- What exists and what happens?
- Why does it happen?
- How does one know?

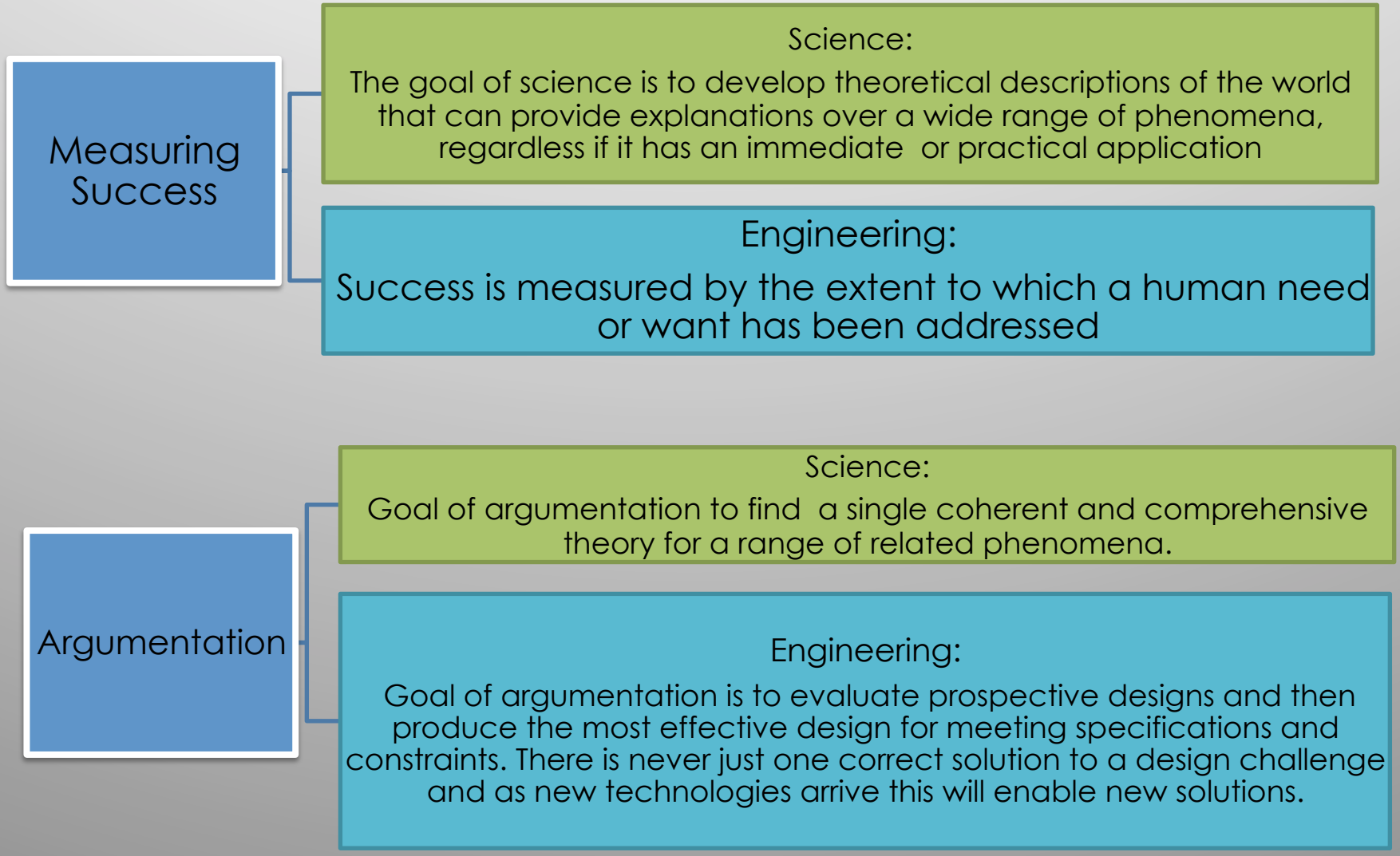
Engineering asks:

- What can be done to address a particular human need or want?
- How can the need be better specified?
- What tools or technologies are available or could be developed for addressing this need?

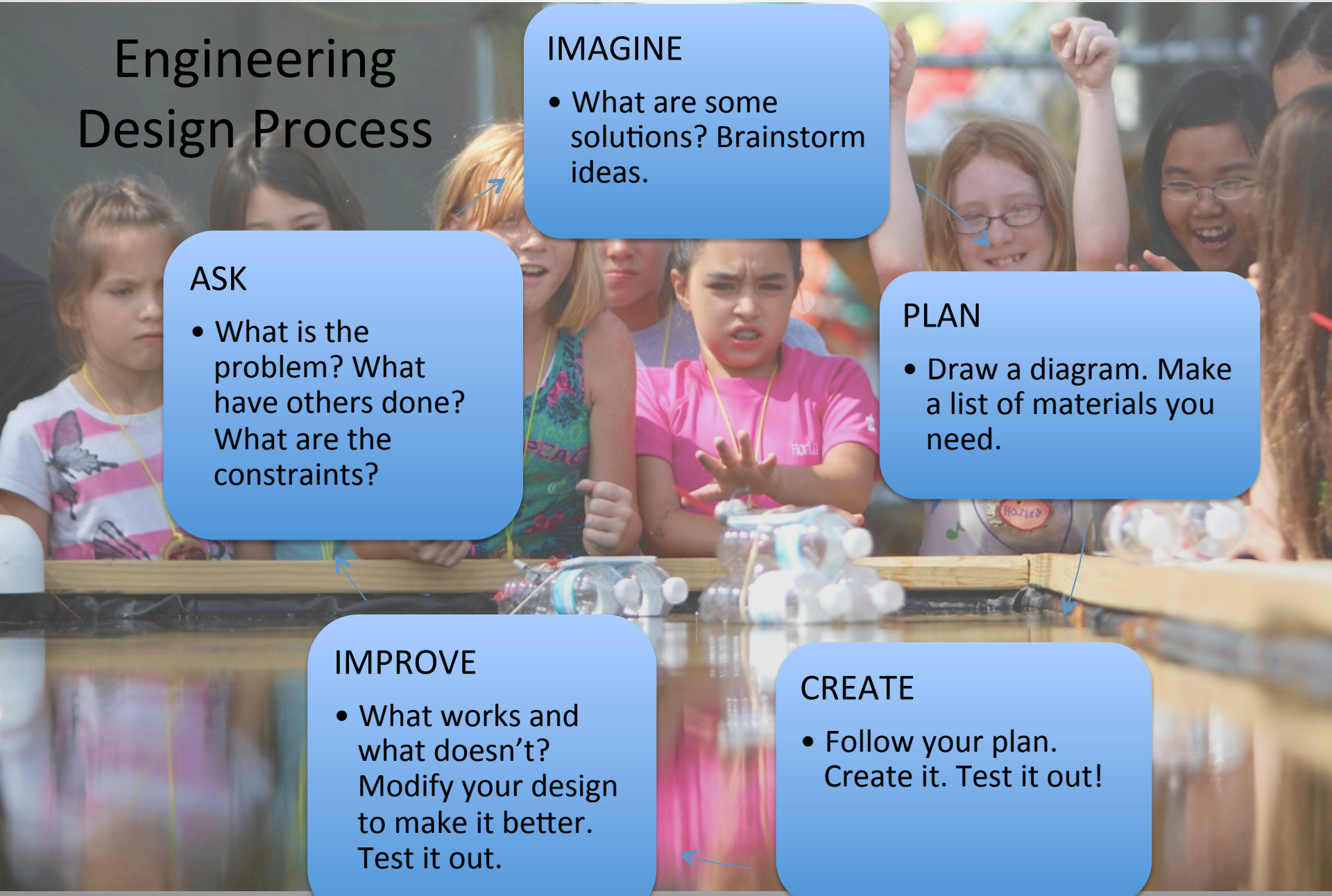
BOTH Science and Engineering Ask

- How does one communicate about phenomena, evidence, explanations, and design solutions?

Differences between Engineering and Science



Engineering Design Process



IMAGINE

- What are some solutions? Brainstorm ideas.

PLAN

- Draw a diagram. Make a list of materials you need.

CREATE

- Follow your plan. Create it. Test it out!

IMPROVE

- What works and what doesn't? Modify your design to make it better. Test it out.

ASK

- What is the problem? What have others done? What are the constraints?