Engineering Design Process Template

**ASK:**
- Define the problem
- Do background research
- Specify requirements

**IMAGINE**
- Brainstorm solutions

**PLAN**
- Choose a solution
- Develop/draw the solution

**CREATE**
- Build a prototype
- Test the prototype

**IMPROVE**
- Communicate, share ideas
- Evaluate results

Then, redesign!

*Cycle can start at any point!*

Adapted from: teachengineering.org
NGSS Engineering Design Process

**K - 2**

**Define**
Identify situations that people want to change as problems that can be solved through engineering.

**Optimize**
Compare solutions, test them, and evaluate each.

**Develop solutions**
Convey possible solutions through visual or physical representations.

**3 - 5**

**Define**
Specify criteria and constraints that a possible solution to a simple problem must meet.

**Optimize**
Improve a solution based on results of simple tests, including failure points.

**Develop solutions**
Research and explore multiple possible solutions.

From NGSS April 2013, Appendix I