

2018 STEM Fair Student Guide

Creative problem solving, investigation, and innovation.

Part 1: Ask

What is my topic? _____

Background/Research Info:

What is the problem? What do you know about the topic?

Part 2: Imagine

Brainstorm (sketch, draw, write) ideas for your creation:

Part 3: Plan

Draw a sketch of what you will be creating. Make a list of materials you will need.

Design	Materials

Part 4: Create

Build, design, or create your project. Keep notes on your building phase. Were there difficulties? Problems? Interesting finds?

Part 5: Improve

Test your creation. Take notes. What worked? Didn't work? What could be better? Should anything be changed? Can the product be improved?

Collect any data possible.

Now make any changes you find necessary to your creation. Re-test your product (if needed).

Part 6: Summarize

Provide a summary of your project. Be sure to answer the following questions in your individual, group, or class report.

- What was the purpose of your product?
- How did you come up with your plan to create the product?
- Why was it made the way it is?
- What materials were used?
- What challenges did you encounter?
- What makes your creation unique?
- What changes did you make after testing? Why?
- Are there changes you would still make to improve your creation?
- Who could use your device? Would it help someone else?
- Was it easy or difficult to think of your idea? Why?

Part 7: Presentation

Create a visual or audio presentation that explains your design to an audience of all ages. Examples would be: Google Slide Presentation, Prezi, Movie Maker, Tri-Fold Board. (Helpful hint: Use a chromebook to take pictures during your project if you want photos).