

Name: _____

Date: _____

Engineering Design Process

Creating an Innovative Southbridge Middle School

Project Planning Sheet

Step 1. Define the Problem/Goal:

Create a poster that uses the engineering design process to reflect the goal of creating an Innovative Southbridge Middle School.

Step 2. Research/Brainstorm: What is an innovative school? What are the elements of an innovative school? What are YOUR IDEAS of an innovative school?

Step 3 - Create a Design:

Step 4 – Prototype/Build:

Step 5 - Test, Evaluate and Revise:

Step 6 – Communicate/Share:

in·no·va·tion

noun

1. the action or process of innovating.

synonyms **change, alteration, revolution, upheaval, transformation, metamorphosis, breakthrough**

: [More](#)

- a new method, idea, product, etc.

plural noun: **innovations** "technological innovations designed to save energy"

Tips for Building a Successful Prototype

- **Keep a clean workstation;** be aware of the location of all materials and tools. • Read the MESA Contest Specifications carefully before starting the competition. Make sure you are building a prototype that will successfully complete each MESA competition task.

- **Plan before you build.** It is better to plan out your ideas before acting upon them. This allows you not to waste material or time.

- **Write everything down.** These projects take a long time to build so if you write everything on paper (i.e. data, future plans, procedure); you don't have to try to remember things over a long period of time.

- **Tools are not toys.** Use tools properly and be careful with any tool in the classroom. If you don't know how to use a tool, ask your teacher or an adult for assistance.

- **"Measure twice, cut once."** When cutting any material, it is best to measure multiple times for accuracy before permanently altering the material. • Manage your time well. One main constraint for all engineers is time. You will not get an unlimited amount of time to build your prototype. So make sure your team is managing your time well. • Have fun and be safe! Most students do not get a chance to build their own designs. So be as creative as you can and have fun