

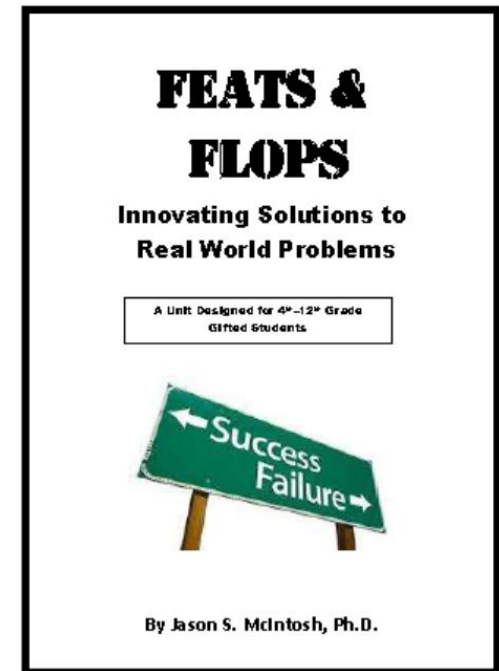
Feats & Flops

Innovating Solutions to Real World Problems

By Jason S. McIntosh, Ph.D.

Mcintosh.jason1@gmail.com

Abstract: The Feats and Flops unit includes nine weeks of lesson plans designed to meet the needs of **gifted students** in **grades 4-12**. The overarching goals of the unit are to enable students to (a) solve real world problems, and (b) transform into innovators, makers, and producers. Students will use the engineering design process, SCAMPER, and a new tool called “My Maker’s Map” to innovate solutions to hypothetical scenarios and personal situations in their own lives. By the conclusion of the unit, students will have created a prototype of an invention, participated in a simulated “Shark Tank Junior” episode, completed a patent application for their idea, and planned a Maker’s Faire for their school.



My Maker's Map & Innovation Notation Notebook

MY MAKER'S MAP

Maker's Name _____ Iteration # _____ Date _____

My Reflection

+ - ! ?

My Problem:

My Ideas

- 1.
- 2.
- 3.
- 4.

Use the back of the page to draw or list ideas.

Ask

What is the problem?

Imagine

What are possible solutions?

Improve

Did it work? How can I make it better?

Plan

What would it take to make it happen?

Create

Put your plan into action!

My Blueprint

STUFF

Tools

My Daily Journal

M	
T	
W	
T	
F	

Created by Jason S. McIntosh, 2015

Page 27

Additional space for notes or sketching!

Innovation Notation Notebook



Name: _____

Date: _____ Grade: _____

Page 1

Feats and Flops

Entry #1:

Write your personal definition of a feat and give an example below:

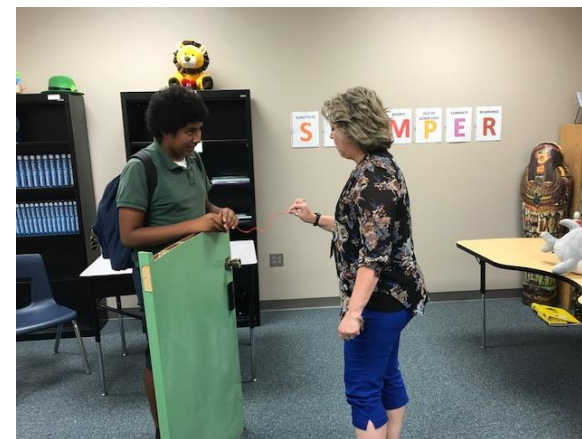
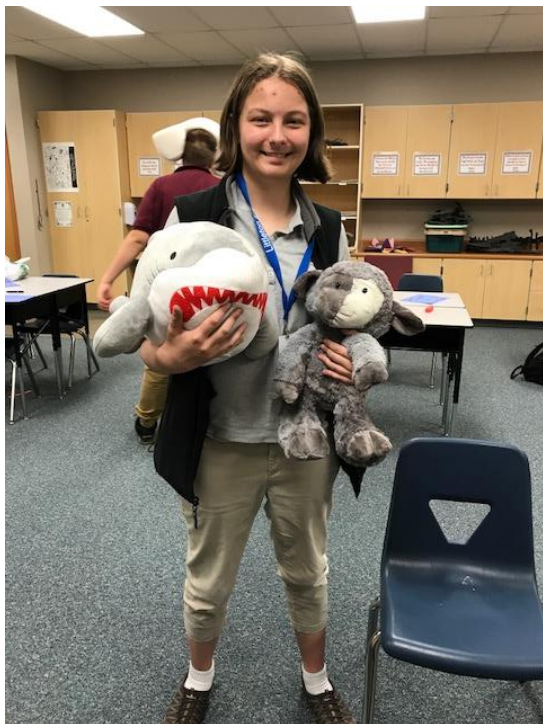
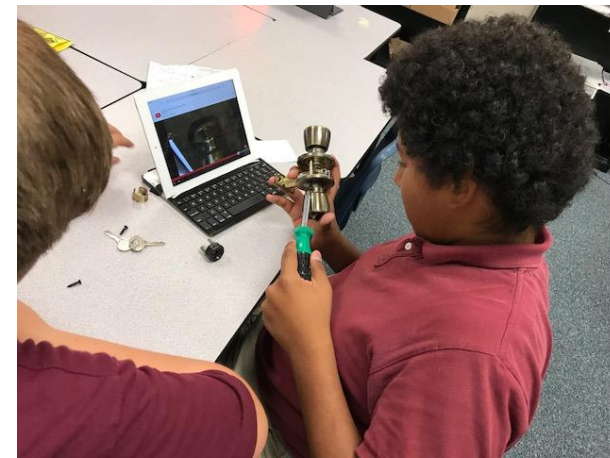
Entry #2: Write your personal definition of a flop and give an example below:

Page 26

Additional space for notes or sketching!



Examples



Available through Royal Fireworks Press

www.rfwp.com

Or

Directly from
Jason McIntosh

Blueprint to Innovation

Name _____ Date _____

Directions: Use the chart below to help you create a detailed plan for making your innovation come to life. The more thought you put into the plan before you begin, the less time the construction phase will take.

Stuff (Materials to construct prototype)	Tools (Eg. Wirecutter, saw, screwdriver)
Steps (What to do first, second, third...)	Time (An estimate of the time each step will take)
Research (Questions to answer before construction begins)	

Breaker Space Breakdown

Name _____ Date _____

Description of Object BEFORE Disassembly

Name of Object _____ Brand _____

Intended Purpose of Object:

Sketch of the Object:

Color _____ Size _____

Estimated Cost _____ Estimated Age _____

Is any portion of the object toxic or dangerous? (circle one) **Yes** **No** **Not Sure**

WARNING! If you answered yes, do not attempt to disassemble the object!
If you are not sure, consult with your teacher.

If you were to break this object down into each of its component pieces, how many pieces do you predict there would be? _____

Description of Object AFTER Disassembly

How many parts and pieces did your object consist of? _____

Sketch the most interesting piece in the box below:

Sketch the smallest piece in the box below:



What surprised you the most about the object you took a part?

What would you still like to know about the object?