

Sharing section...examples from our classrooms:

[Flight Blog](#) - grade 6 (Erin)

Video reflections - grade 5 electricity (Erin and Kathryn)

Building a mechanism that uses electricity planning docs/reflection doc (Erin and Kathryn)

Mouse-trap cars (Deirdre and Jenna)

Successes and Failures

- students struggles with open-endedness of task (what exactly do you want me to build???)

- ("just tell me how to do it" and the MANY discussions we had about why we weren't doing that...more learning takes place from the PROCESS of planning/designing/testing/tweaking/reflecting)

- how to guide them through roadblocks - design, test, tweak, design, test, tweak

- frustrations when it doesn't work

- a-ha moments

- learning from the failures

- built-in assessment of the process...feedback, self reflection/assessment, co-design of rubric to guide work. What does good work look like?

- learning is very messy (literally and figuratively)

Group discussions:

Share examples of what you've tried in your classrooms or idea that you might want to try....

How can we move from talking about this disposition to embodying it in our classrooms?

How can we foster engineering thinking skills in the elementary classroom?

What attributes do we want students to develop?

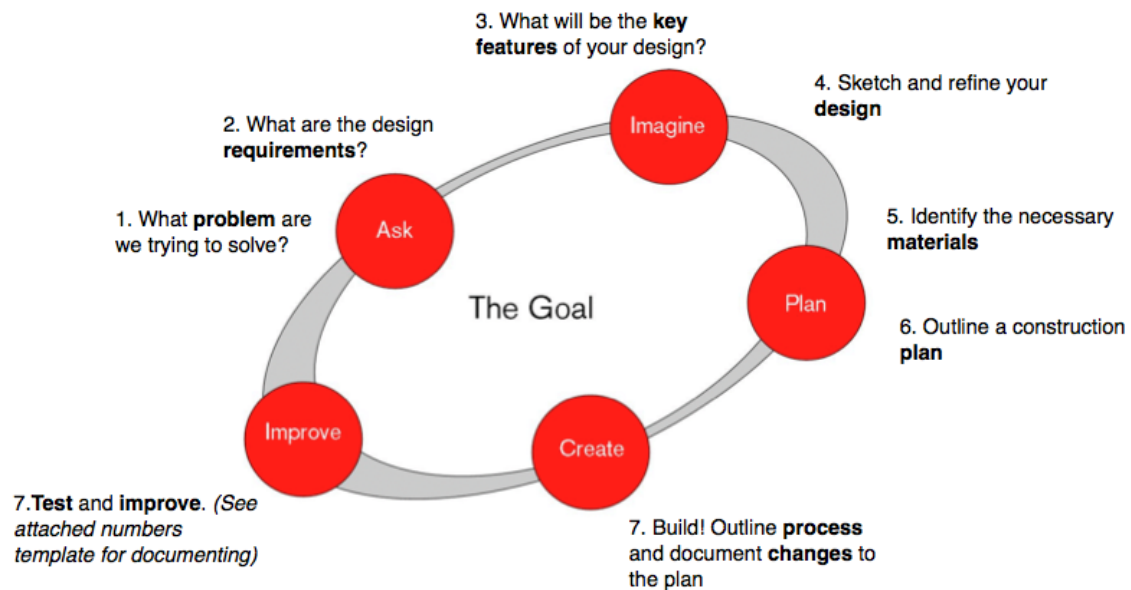
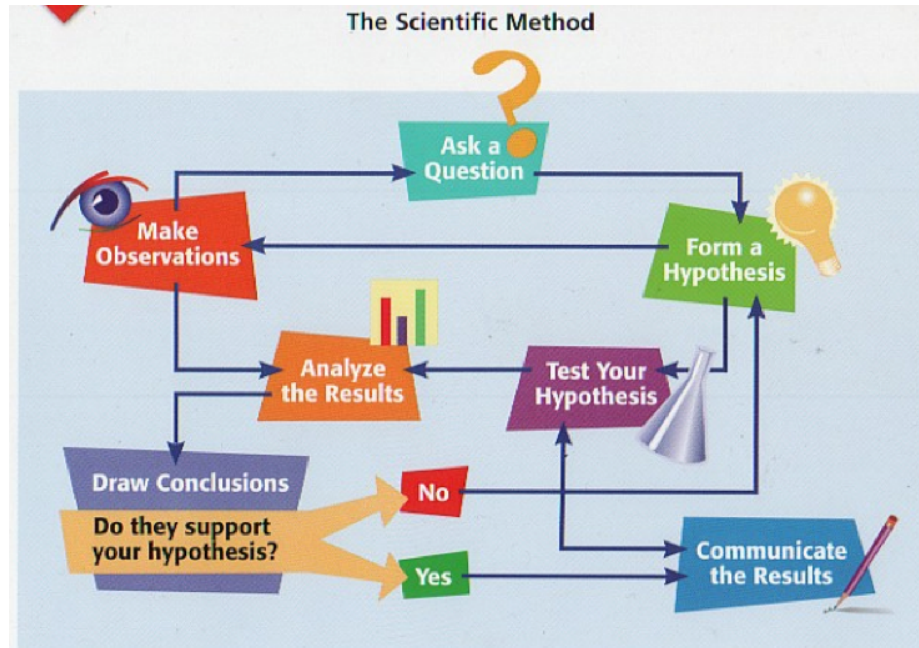
What are examples of tasks that encourage these types of thinking/disposition and problem solving attributes?

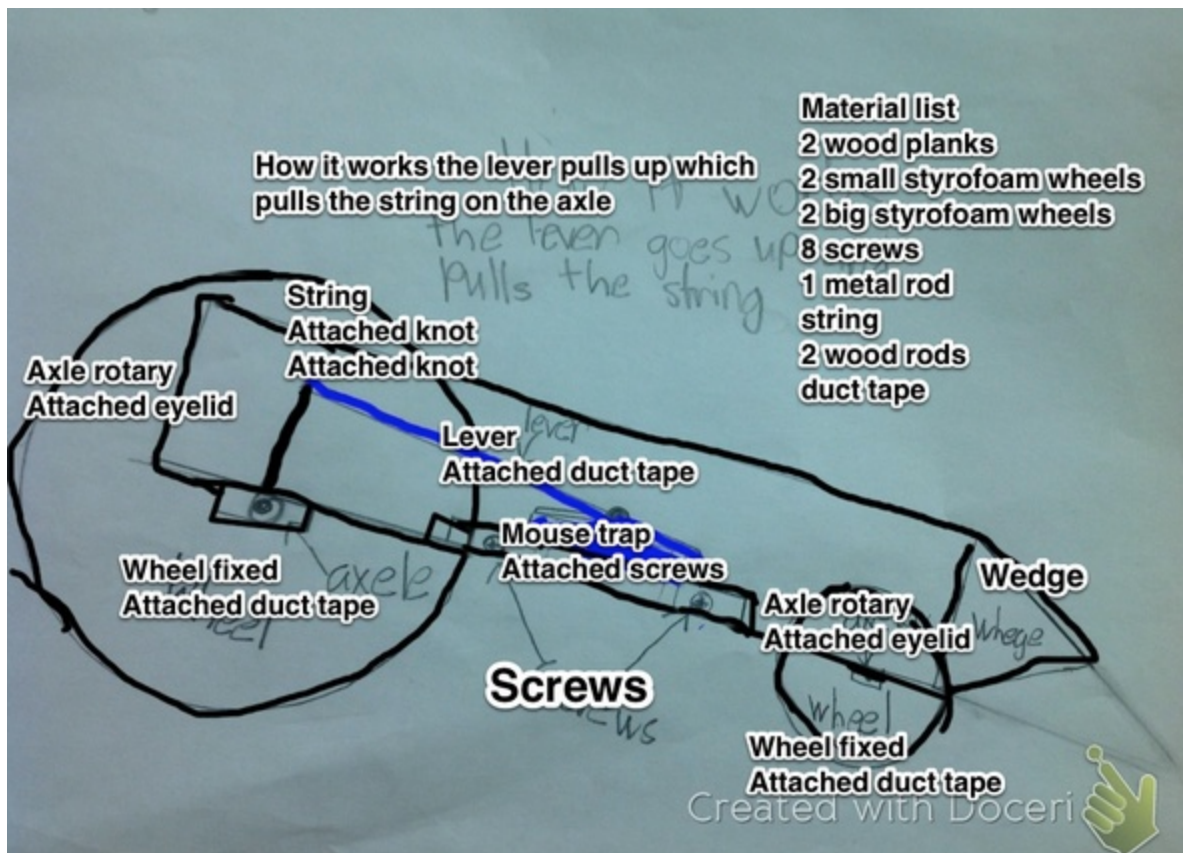
How do you structure/scaffold an inquiry to ensure student success?

Design/Engineering compared Experimental

The Scientific Method	The Engineering Design Process
State your question	Define the problem
Do background research	Do background research
Formulate your hypothesis, identify variables	Specify requirements
Design experiment, establish procedure	Create alternative solutions, choose the best one and develop it
Test your hypothesis by doing an experiment	Build a prototype
Analyze your results and draw conclusions	Test and redesign as necessary
Communicate results	Communicate results
Steps of The Scientific Method	Steps of The Engineering Design Process

[Link..](#)



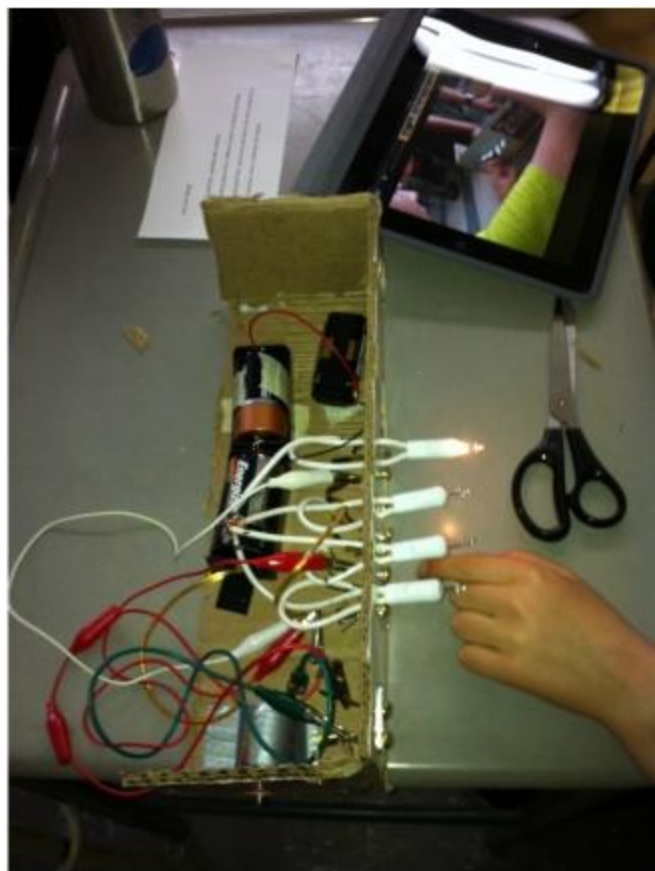




switch on my car my
movement, light
when I push a paper clip
is the motor.

...that









Our project is a burglar alarm. The burglar alarm makes noise when the thief steps on the switch(the stick). You should be listening for the noise that the alarm makes when the switch is stepped on. We built this device because we thought making a burglar alarm would be a challenge for us and we wanted to see how high we could take our learning.
By: Kyra and Yashriya