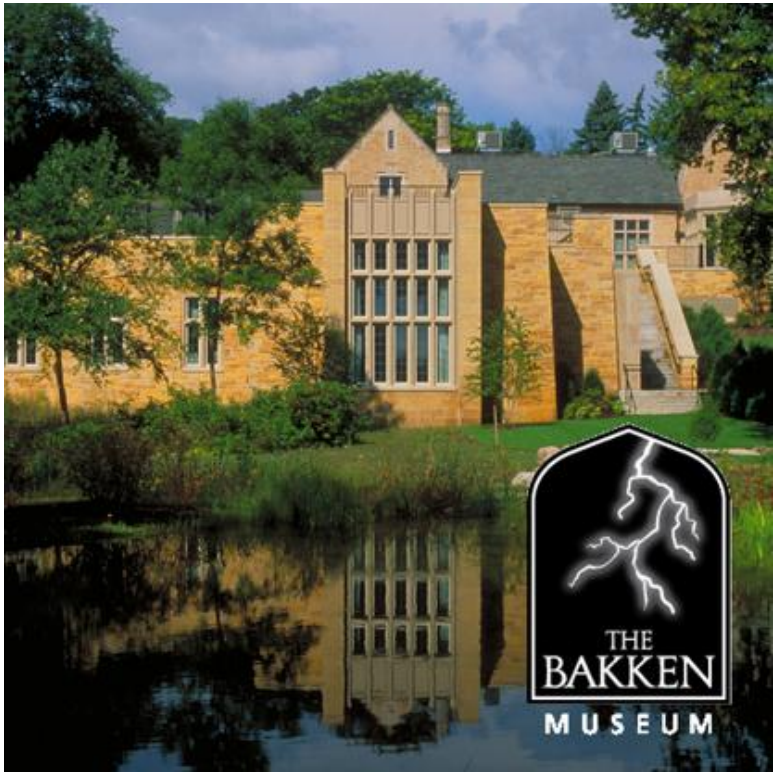
TBI Report Out

The Bakken Museum

Minneapolis, MN



NISE network™
NANOSCALE INFORMAL SCIENCE EDUCATION

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www.nisenet.org

Small Stuff, Big Deal

Project

To design a new assembly program on the topic of nanoscale science.

Educational Goal(s)

- Nano means very small (one billionth of a meter)
- Things behave differently when they are very small
- As things get small, they have more surface area for the same volume; increased surface area increases reactivity
- Nanoscale science can and does have an effect on our lives

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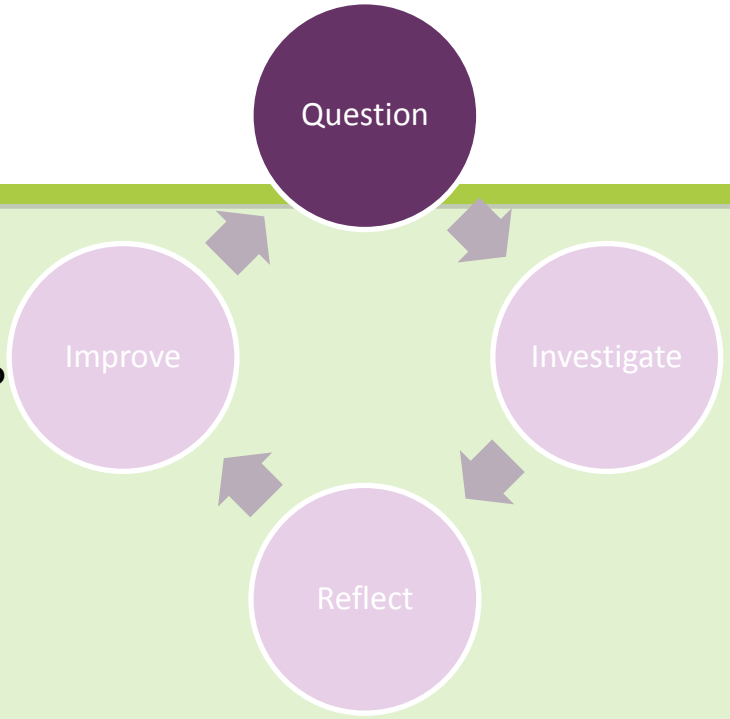

TBI Questions:

1. Does the program successfully engage participants in the subject of nanoscale science?
2. Do participants understand that things behave differently when they are very small?
3. Does the program increase audience understanding of surface area and reactivity on the nanoscale?

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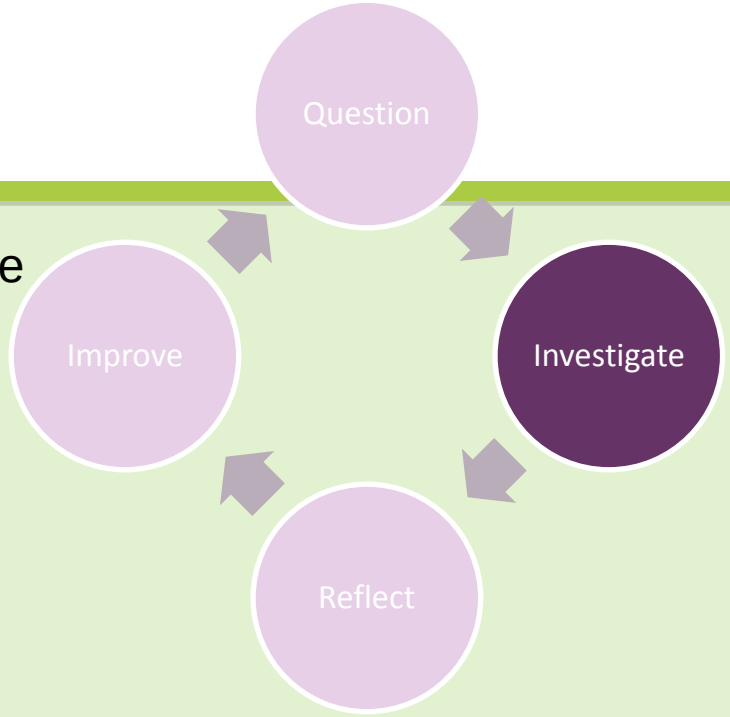

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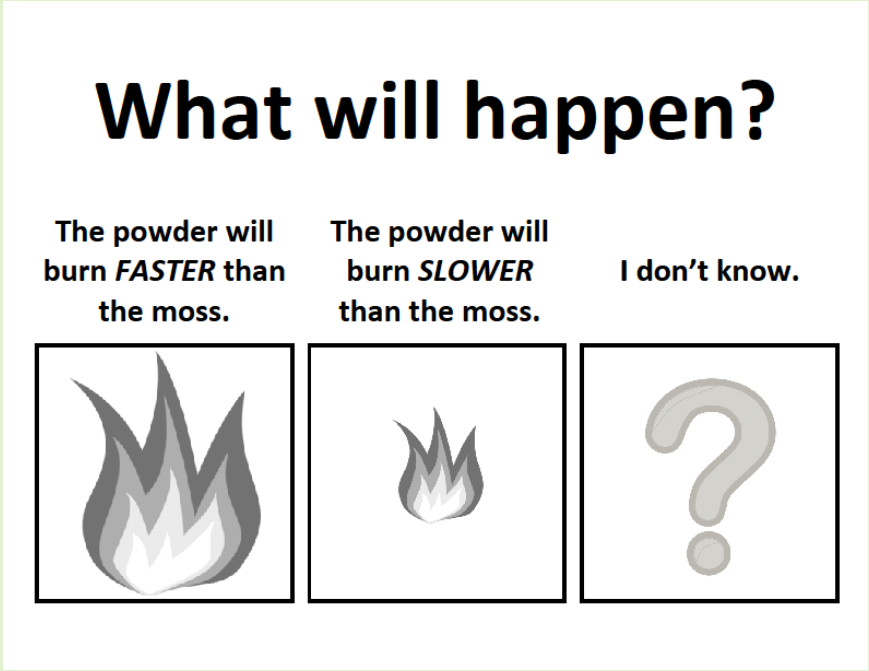

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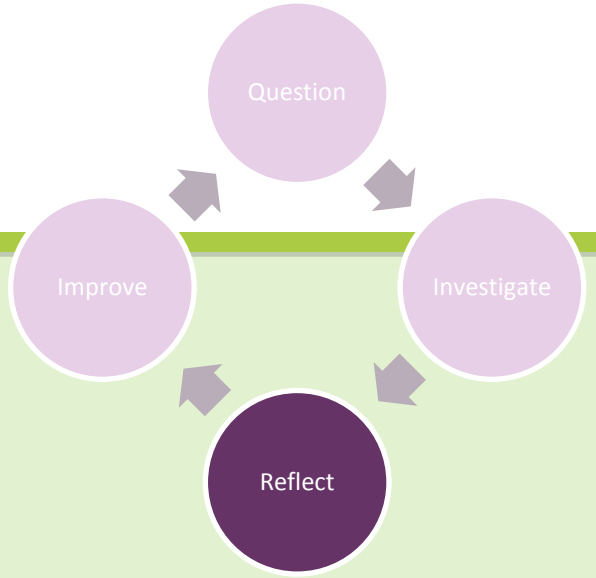

TBI Question: Does the program increase audience understanding of surface area and reactivity on the nanoscale?

First performance on 7/13:

68% of students predicted correctly the first time

- Student comments overheard during voting indicated this was not due to engaging with the subject of surface area but rather the predictable pattern set up by the show.

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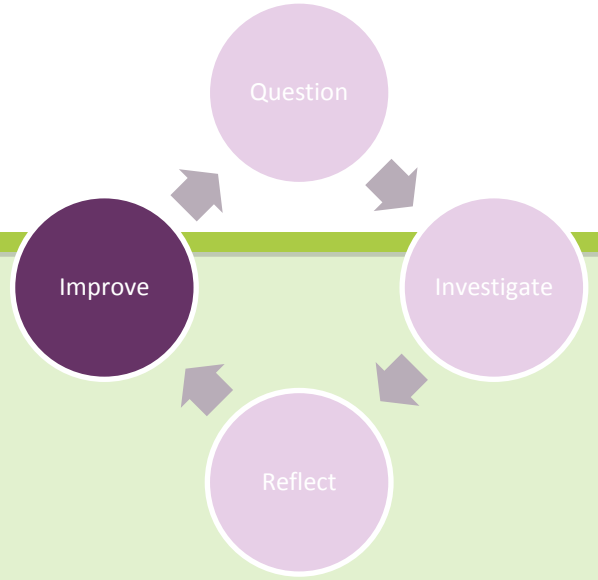
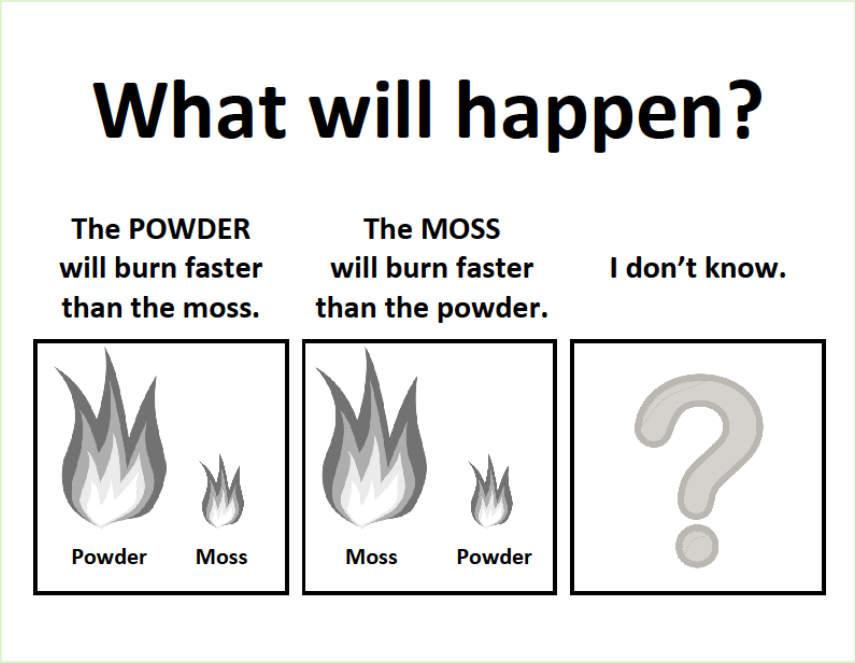


TBI Question: Does the program increase audience understanding of surface area and reactivity on the nanoscale?

Made program changes

- Changed prediction question & experiment set-up
- Repeated process with next show



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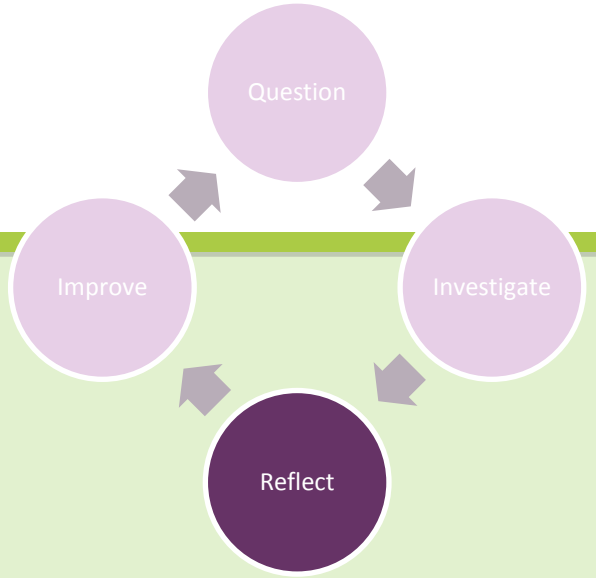

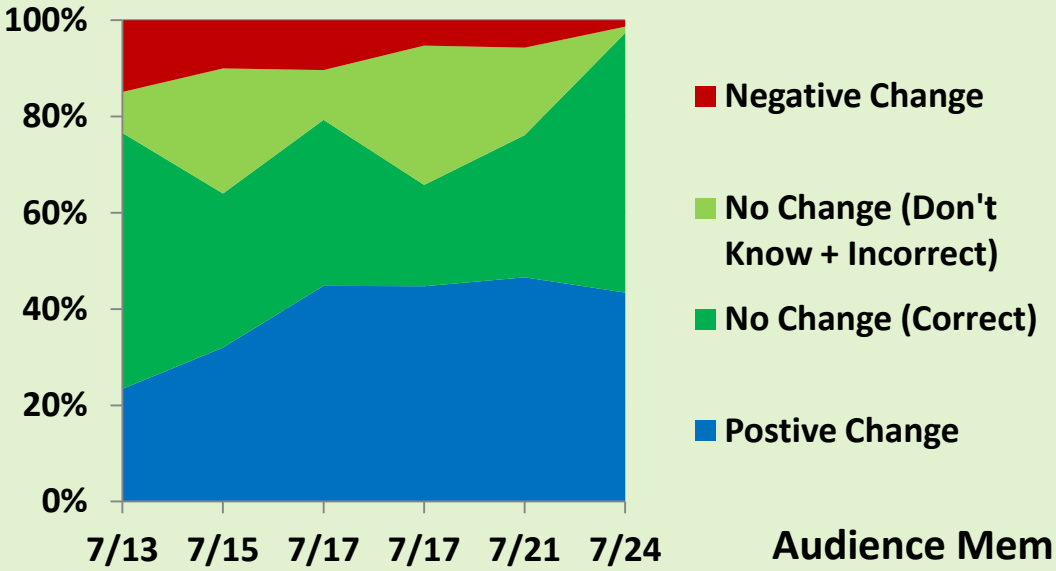

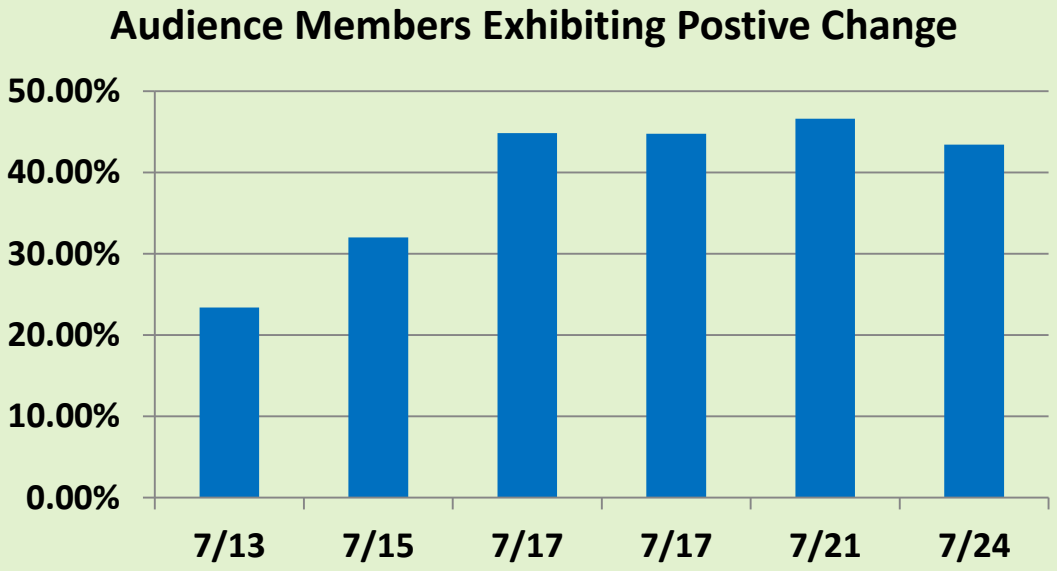

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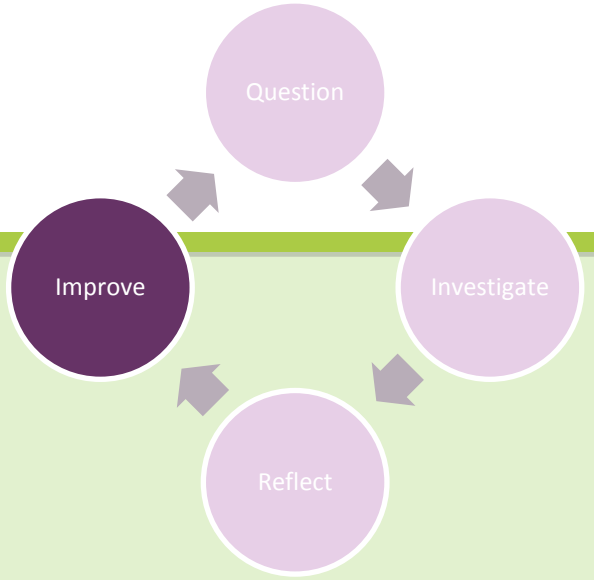

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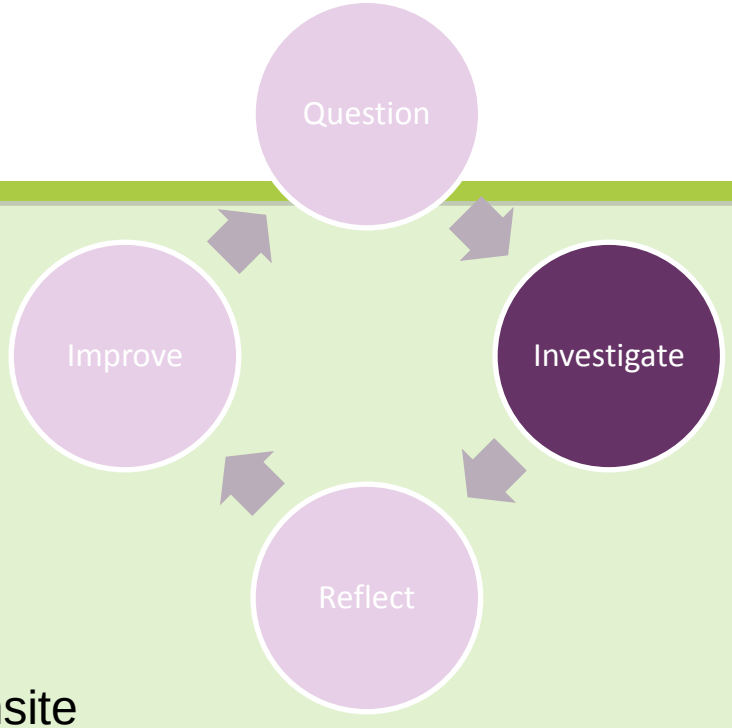

TBI Questions:

1. Does the program successfully engage participants in the subject of nanoscale science?
2. Do participants understand that things behave differently when they are very small?

Conducted interviews with 6 (adult) guests after onsite presentation of program

Used questions from TBI this spring:

- What did you like most?
- What could be improved
- In your own words, what was it about

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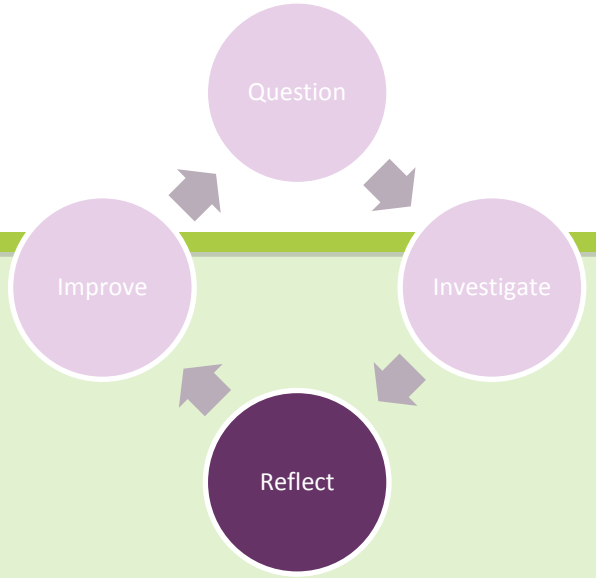
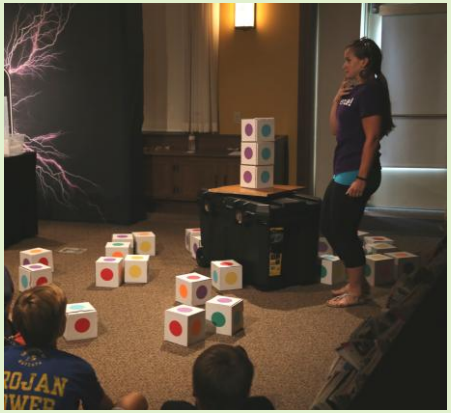


People liked:
fire, humor, entertainment/interest value, simplifying a complex idea



Suggested Improvements:
more fire, more applications, address complexity with video, nothing

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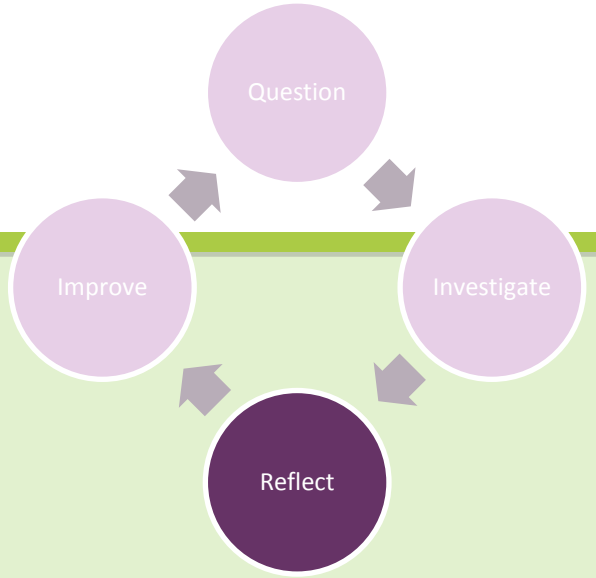

What people said it was about:
Nano/size/small things
Surface area
Science and methods
Implications of nano/science

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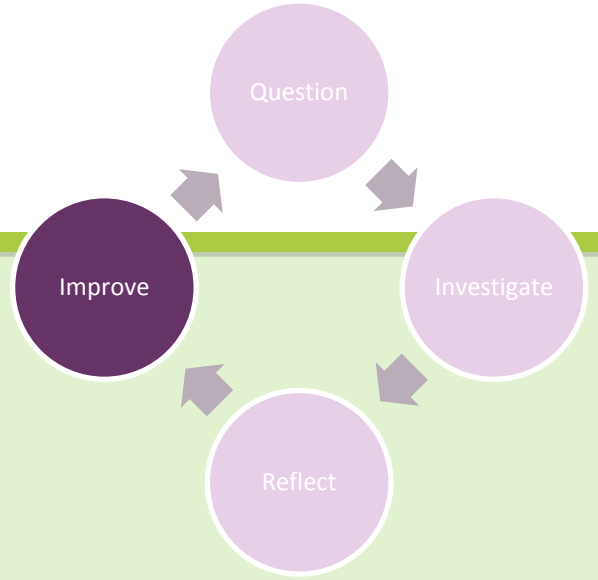

Action Items

- Already improved fire demo
- Looking into including video
- Looking into extension activity for applications
- Include methods in pitch to teachers

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