# STEAM Update

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December 13, 2018

# Next Generation Science Standards

3 Dimensions:

- Science and Engineering Practices
- Disciplinary Core Ideas
- Cross-Cutting Concepts

## 5-PS2 Motion and Stability: Forces and Interactions

**5-PS2 Motion and Stability: Forces and Interactions**

Students who demonstrate understanding can:

**5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.** [Clarification Statement: "Down" is a local description of the direction that points toward the center of the spherical Earth.] [Assessment Boundary: Assessment does not include mathematical representation of gravitational force.]

The performance expectations above were developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

| Science and Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
|---|---|---|
| **Engaging in Argument from Evidence**<br>Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).<br>• Support an argument with evidence, data, or a model. (5-PS2-1) | **PS2.B: Types of Interactions**<br>• The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. (5-PS2-1) | **Cause and Effect**<br>• Cause and effect relationships are routinely identified and used to explain change. (5-PS2-1) |

*Connections to other DCIs in fifth grade: N/A*

# Why STEM to STEAM?

- Real-world learning
- More engaging and hands-on
- Supports project-based learning
- Increases collaboration and integration

# STEAM at Beecher

## Current

- Scheduled time in the STEAM Lab
- Enrichment clusters in 3rd and 4th grade
- MAG Student Workshop
- TAG

## Future

- Makerspace
- Open STEAM Lab

# Professional Learning

- Monthly PLCs with grade level teams
- NGSS training session for K-2 teachers
- FOSS in-house PD with 5th and 6th grade teachers

# Thinking ahead

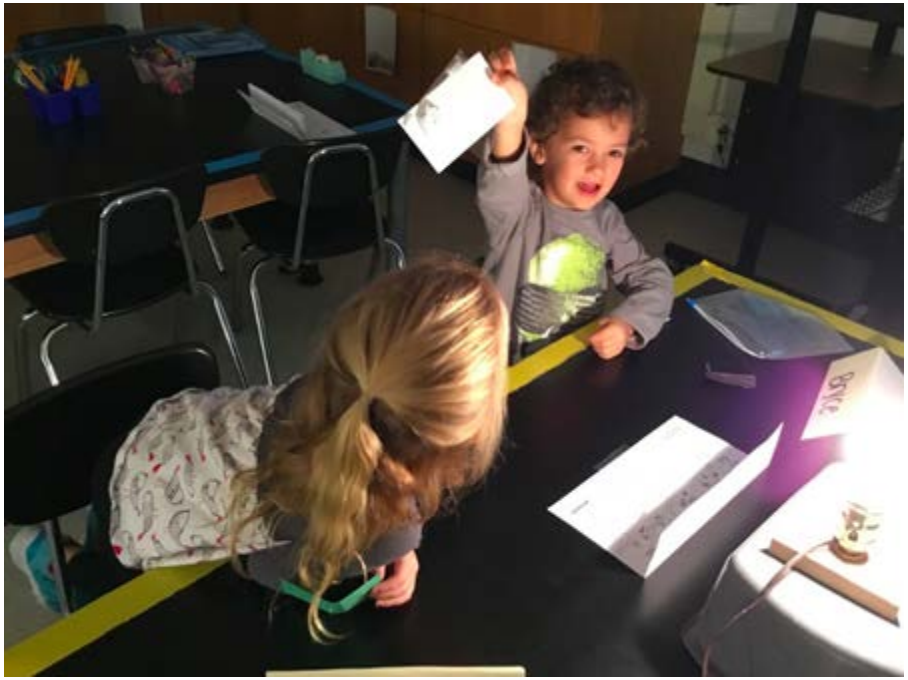
## Parent and Community Outreach

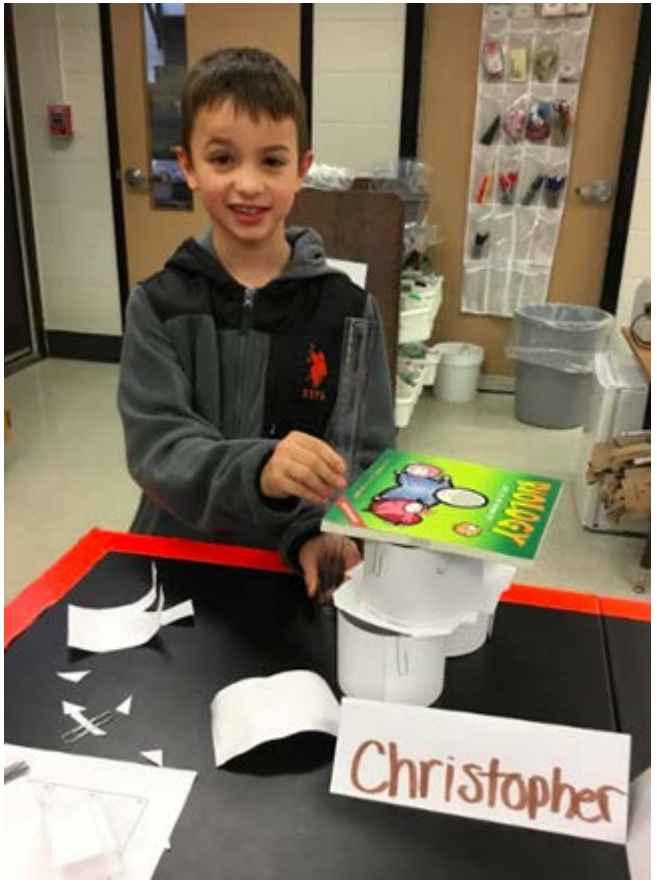
- Parent help during projects
- Special lessons with parents in STEAM fields

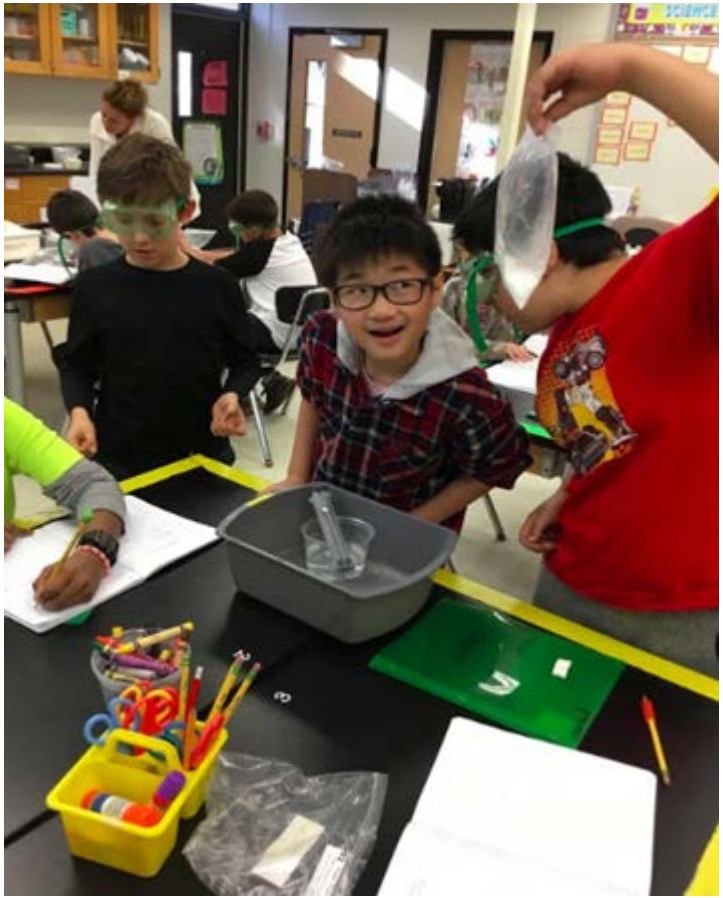
# Essential Outcomes

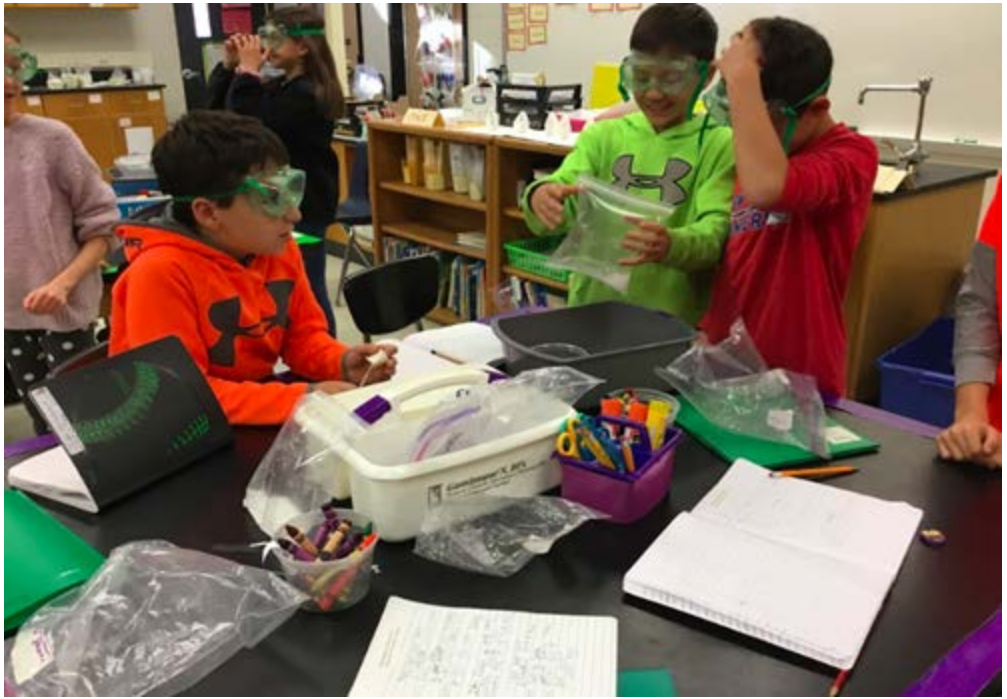
- Creative and critical thinkers
- Problem-solvers
- Prepared for 21st century jobs


Simone
Caleb




Christopher



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