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12/4/17 ECS NEWSLETTER

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Draft

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ECS Newsletter

12/4/17

ECS Mission: To Collaborate with PSB educators to create rigorous, relevant, engaging learning for all students

Goals of the Public Schools of Brookline

Goal 1: Every Student Achieving

Goal 2: Every Student Invested in Learning

Goal 3: Every Student Prepared for Change and Challenge

Goal 4: Every Educator Growing Professionally



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Psbma

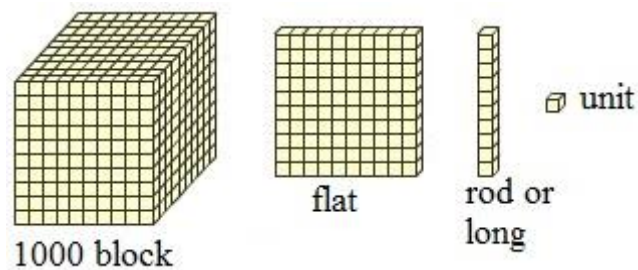
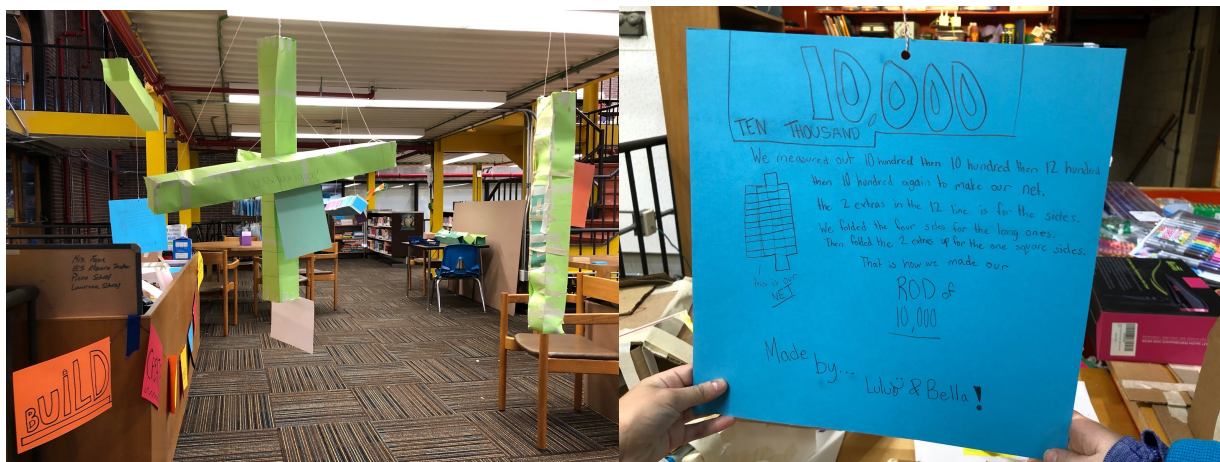
Quote of the week:

"MAKERS ARE PEOPLE WHO CREATE THINGS INSTEAD OF JUST USING THEM."

*Making, Libraries, and Literacies
(Library Media Connection, Jan-Feb 2015)*



Current Goings On



Grade 5 builds their own 10,000 unit blocks

The largest units block configuration only goes up to 1000. Students wanted to make larger configurations. They made accurate 10,000 unit configurations. What's next?



The Pierce Makerspace is coming together nicely.

Articles/Resources

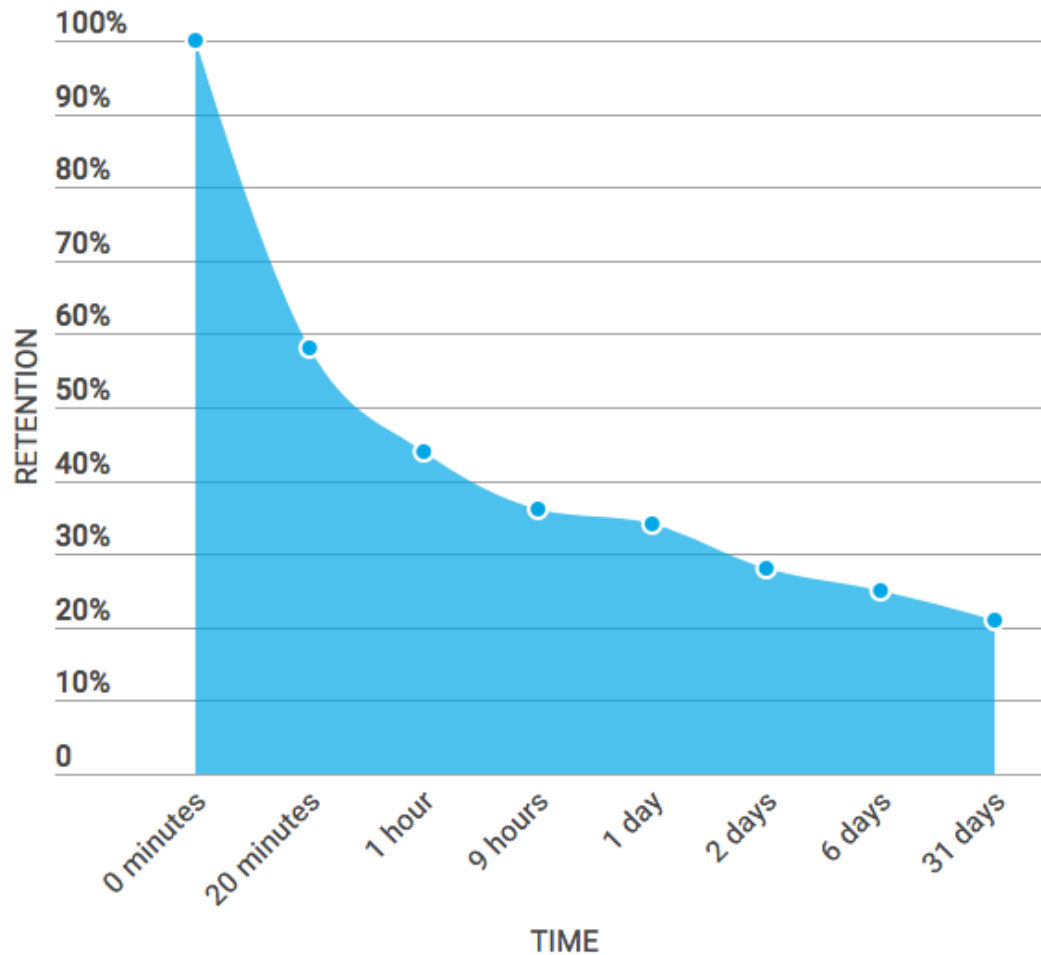
10 Tools for your Students' Creativity Toolbox

From the article: It's a mistake to believe that creativity is an inherent ability that some people have in plenty while others have little. Those are the thoughts of either self-doubters or people who struggle with explaining how to be creative. There are people who are gifted with a natural attunement to creative thinking, just as there are gifted athletes, scientists, and teachers, but dedicated study and practice can hone one's creativity.

Why Students Forget - and What You Can Do About It

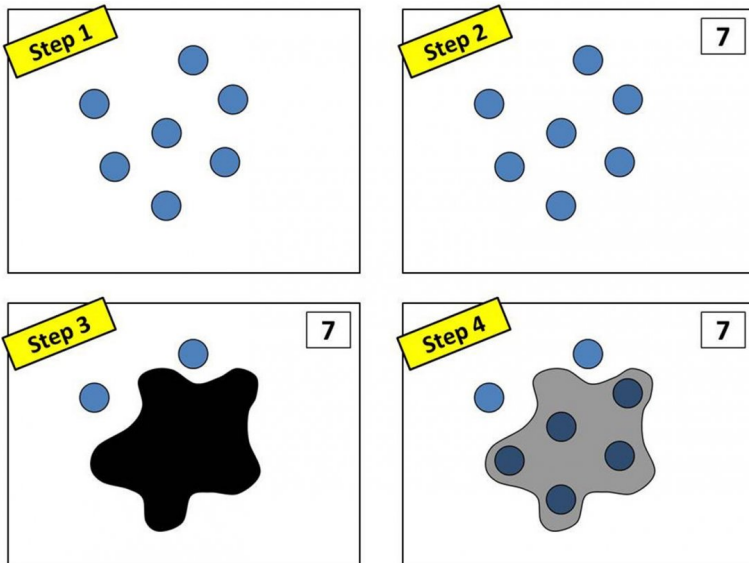
I know students have a hard time retaining information, but the Ebbinghaus Forgetting Curve data surprised me. The author offers 5 research based strategies to combat the "forgetting curve". I think that makerthinking also helps students retain knowledge.

Ebbinghaus Forgetting Curve

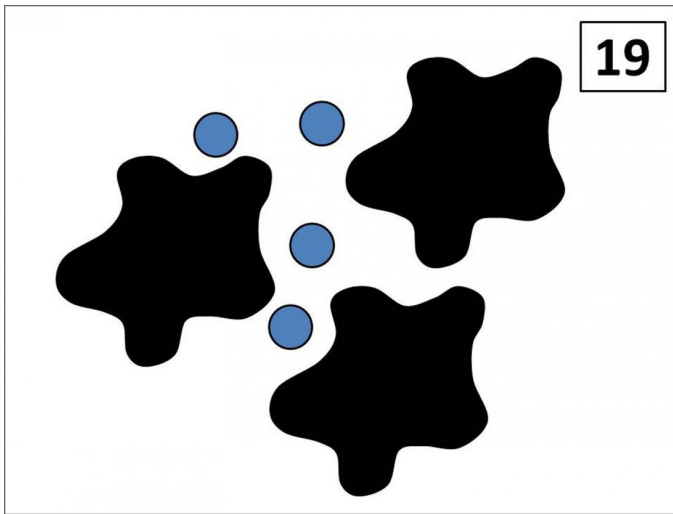


A Math Framework for Multiple Levels

This is such a simple, yet complex idea. It's visual, involves problem solving, and can be easily differentiated. They are called Splat problems.



Here is a more complex problem.



The article has a link to [50 Splat problems](#) including Splat fraction problems!

Equity/Every Student Achieving

[Getting to Know Your Students Deeply](#)

Teachers can improve outcomes and build equity in the classroom by listening closely to their students.

This article give six suggestions on ways to get to know your students more deeply to increase culturally responsive teaching. It is a good start...

Tinker Time

[28 Days of Hands-on STEM Activities for Kids](#)

(And adults)

Here are some examples from the 28 days of STEM activities:

Polymer science.

[Recycled Plastic Flowers \(AKA homemade shrinky dinks\)](#)



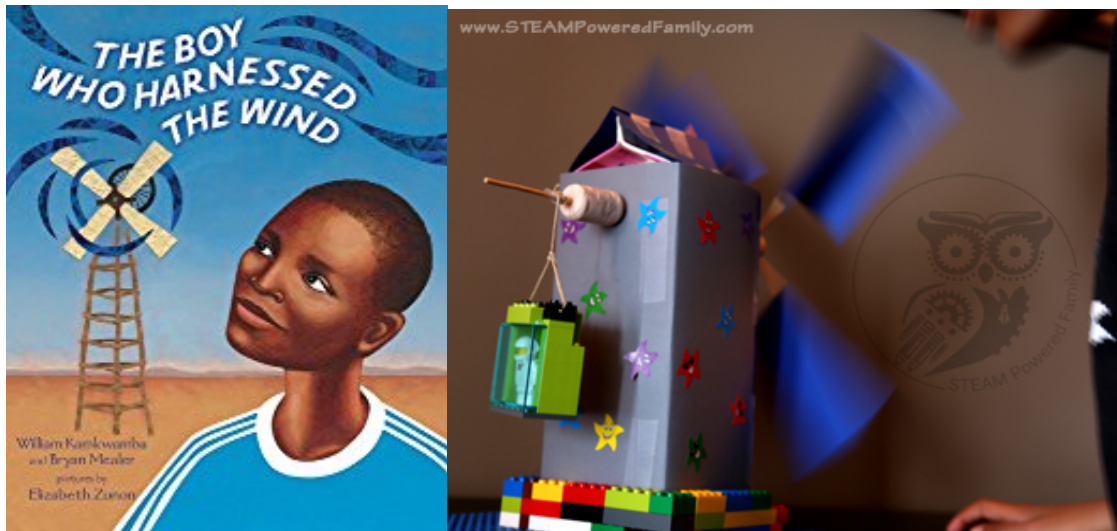
Left Brain Craft Brain

What's the Science Behind These Flowers?

This flower forming works because of the characteristics of the plastic in the cups & plates. The heat of the oven changes the alignment of the polymer chains within the plastic. In the cup and plate manufacturing process, a polymer resin is heated, extruded, rolled into flat sheets and then molded. This process aligns the polymers into an orderly pattern, but the heat of the oven returns them to their naturally disordered, clumped state. Gravity and the placement of the cuts define how they crumple. #6 plastic works well in this project because its melting point is low enough for the oven to reach. Want to learn more about polymers? Try some edible ones with these [Homemade Fruit Gummies](#).

[Wind Powered STEM Challenge - Mission Lego Rescue](#)

This challenge pairs nicely with the books [The Boy Who Harnessed the Wind](#)



[Foam Board and Fairy lights](#)

This could be made without the wooden top and base.

