

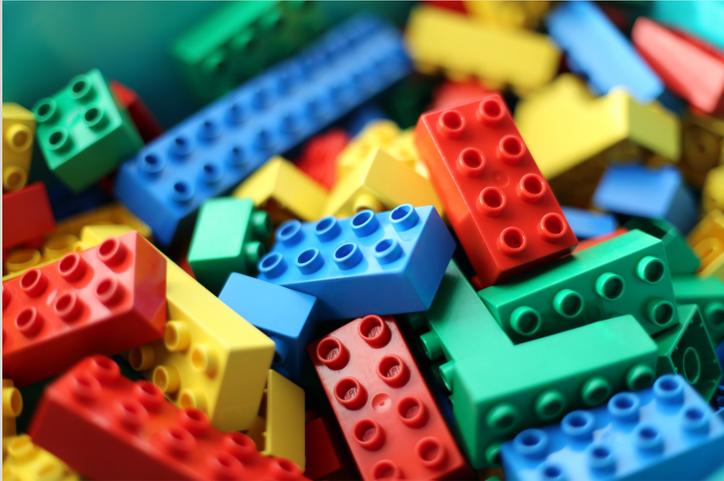
STEM, STEAM AND STREAM

LEARNING IN YOUR OWN BACKYARD

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Board Member Pierce County Library Foundation

MAKERS, THINKERS, CREATORS...



In the next 90 seconds, quickly create and build using the materials in front of you.

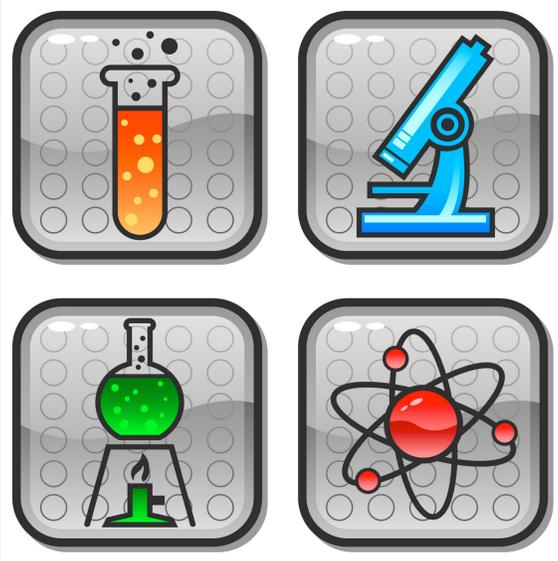
Next, turn and talk with a partner and share your design process, challenges and success with this creation.

WHAT IS YOUR RELATIONSHIP WITH STREAM



On a scale of 1 to 5, what's your relationship with STREAM

- 1: **STREAM** is like that acquaintance you see at the grocery store, you know you know them, but can't quite remember how or where
- 2: Your children and **STREAM's** kid play on the same chess team, but you're not close enough to have a play date
- 3: You and **STREAM** are on a first name basis and go on weekly coffee dates
- 4: You'd have **STREAM** over to dinner and chat about the amazing innovative things they're doing
- 5: **STREAM** is definitely coming home to meet your parents this weekend, you're basically "head over heels"



STREAM



HOW MANY DIFFERENT WAYS CAN WE SAY IT?

June 6th, 2014

Rob Furman shares his feeling on the inclusion of READING to the STEM and STEAM terms.

"We have lost sight of one very important aspect of our education and all jobs, be they high-tech, low-tech, or no-tech. What about the importance of reading? Without the ability to read and write, there is not a job to be found for which STEM or STEAM education is going to be enough preparation.... STREAM: Science and Technology, interpreted through Engineering and the Arts, conveyed through reading and writing, all based in elements of Mathematics"

From the Huffington Post



NEED FOR STREAM...BRINGS US TO WAKIDS

Washington Kindergarten Inventory of Developing Skills

- Three Components
 - Family connection
 - Whole – child assessment
 - Early Learning collaboration

WAKIDS ASSESSMENT PIECE

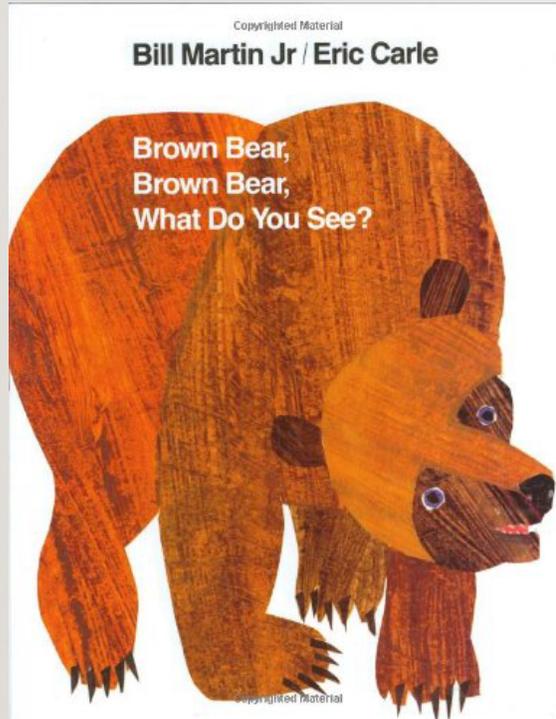
SIX DIFFERENT AREAS

1. Social-emotional
2. Physical
3. Cognitive
4. Language
5. Literacy
6. Mathematics

SPECIFIC OBJECTIVES

- ✓ Taken from GOLD Teaching Strategies
- ✓ Up to 20 objectives informally assessed
- ✓ First six weeks of Kindergarten

STREAM CONNECTIONS FOR EARLY CHILDHOOD



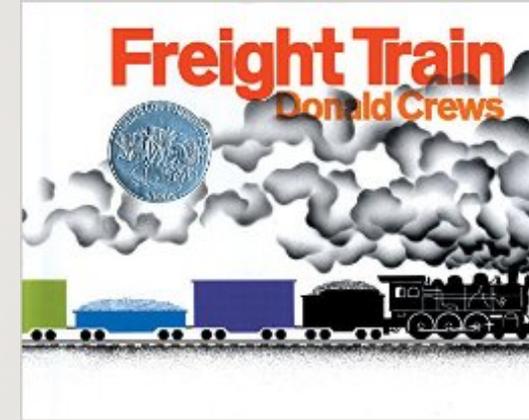
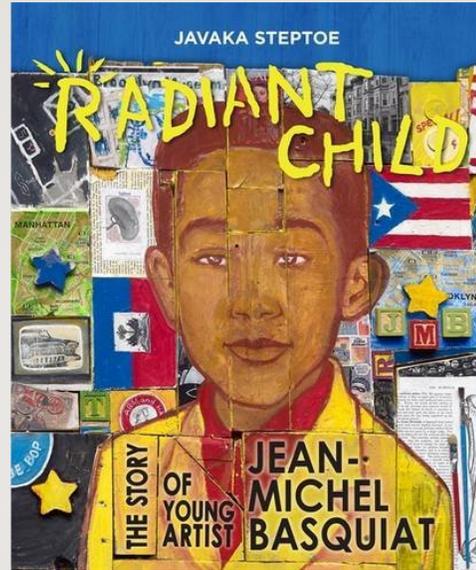
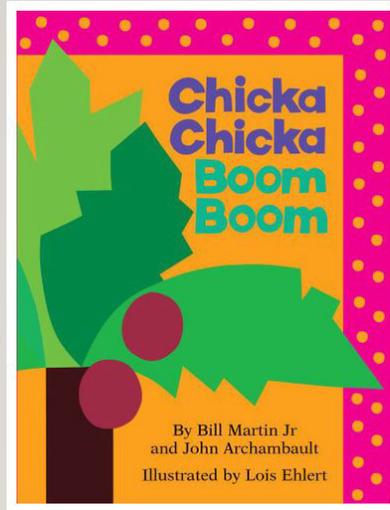
One of the most successful texts and activities with PreK students is Brown Bear Brown Bear What Do You See? By Bill Martin Jr and Eric Carle

This hits upon:

- ✓ Art
- ✓ Literacy – sequencing

BROWN BEAR BROWN BEAR





HERE ARE A FEW OF MY "GO TO" TITLES WHEN WORKING WITH PRESCHOOLERS

TYING INTO STATE AND/OR NATIONAL STANDARDS

Take some time to dig deeper into the standards in Science, Math, Technology and Art in your specific grade level that you've targeted. Let's look at 2nd Grade Math:

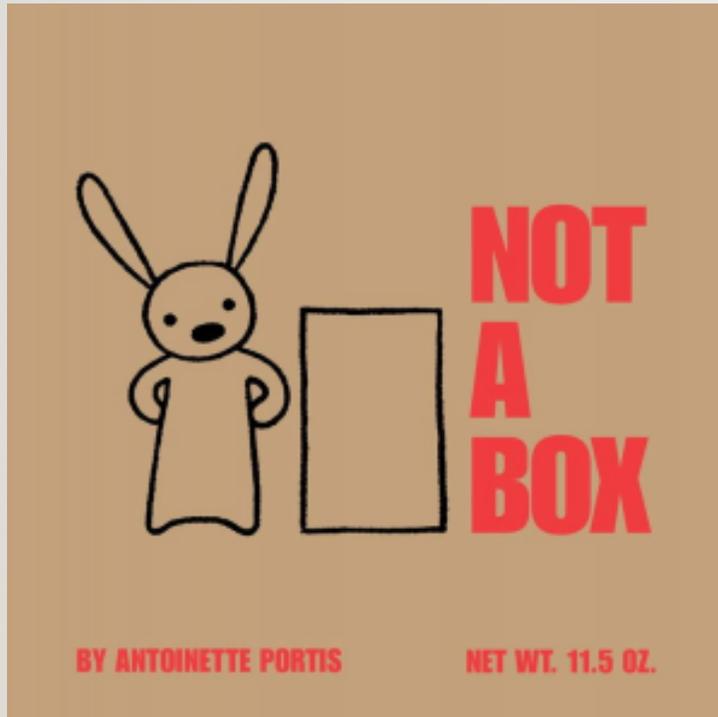
Reason with shapes and their attributes.

[CCSS.MATH.CONTENT.2.G.A.1](#) Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. I Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

[CCSS.MATH.CONTENT.2.G.A.2](#) Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.



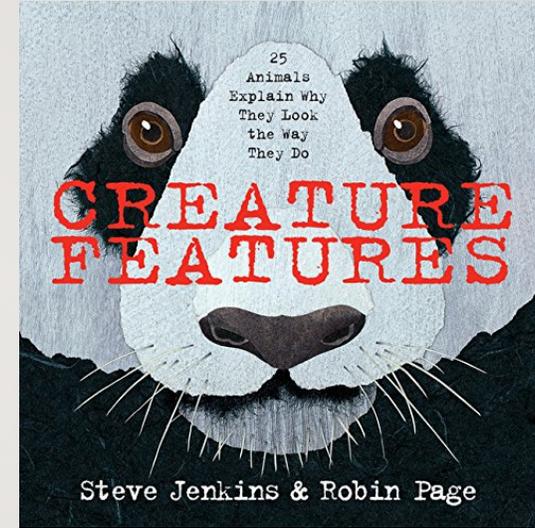
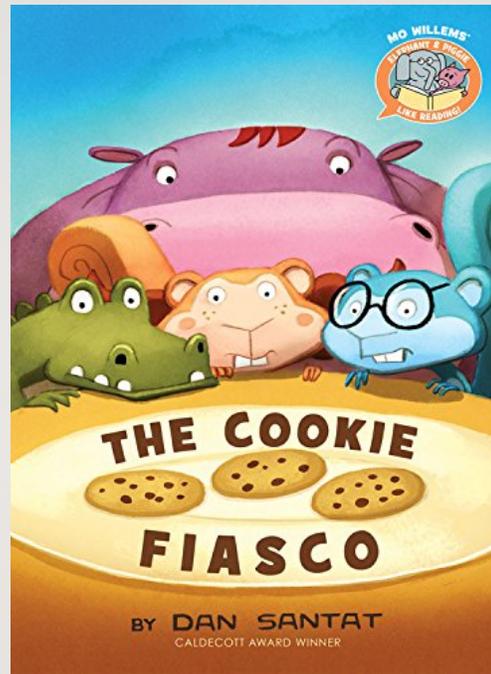
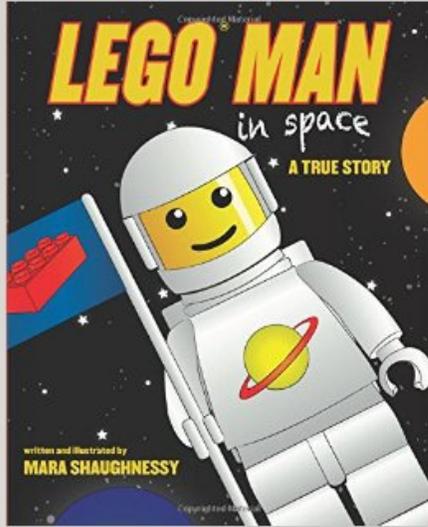
STREAM CONNECTIONS FOR K-2



One of my favorite text to read with primary students is Not A Box by Antoinette Porter.

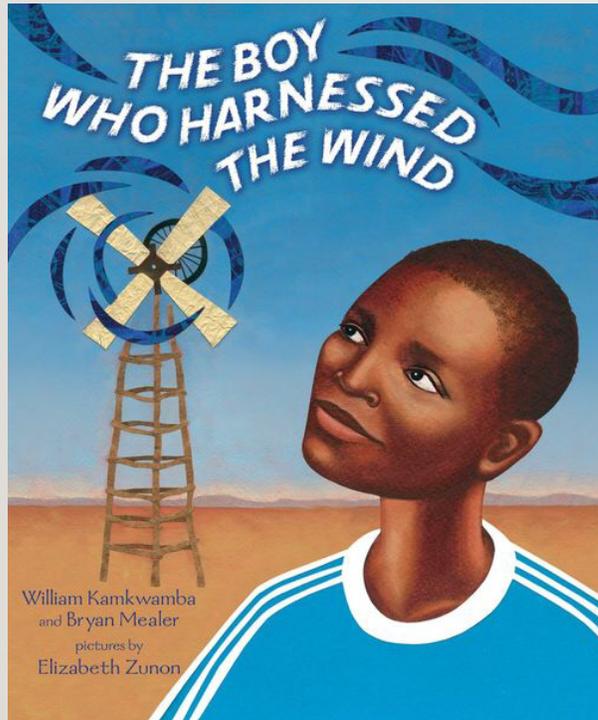
This hits upon:

- ✓ Art
- ✓ Literacy skills
- ✓ Math concepts



HERE ARE A FEW OF MY "GO TO" TITLES WHEN WORKING WITH KINDERGARTEN – 2ND GRADE

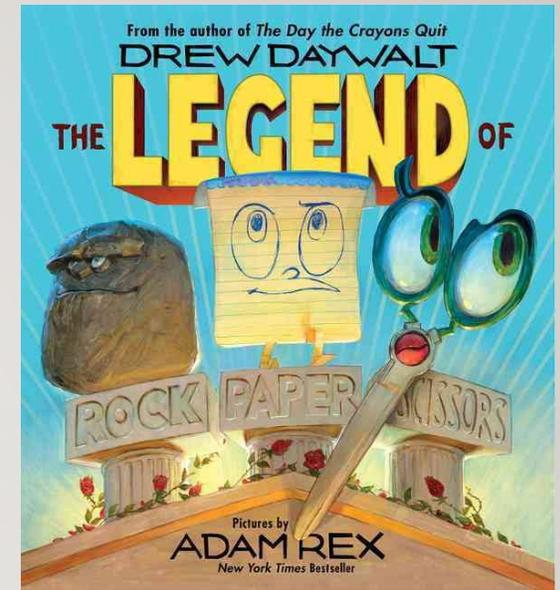
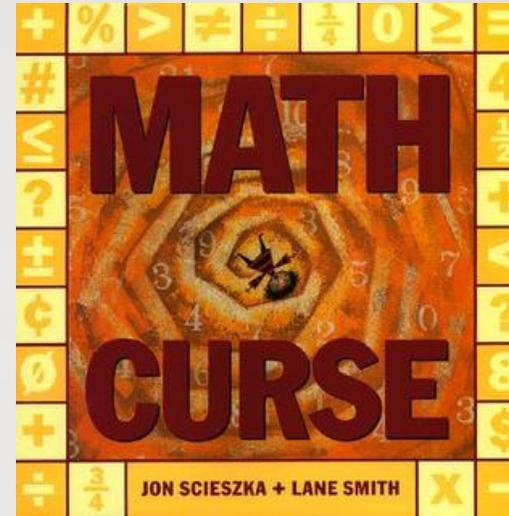
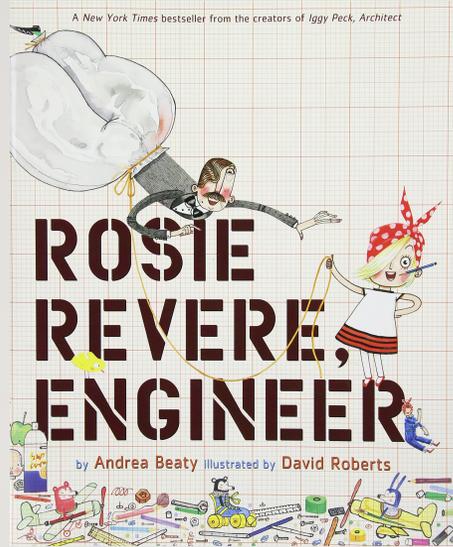
STREAM CONNECTIONS FOR 3-5



The Boy Who Harnessed the Wind by William Kamkwamba and Bryan Mealer:

This hits upon:

- ✓ Math concepts
- ✓ Engineering
- ✓ Science



HERE ARE A FEW OF MY "GO TO" TITLES WHEN WORKING WITH 3RD – 5TH GRADE

CREATING A STREAM LESSON/ACTIVITY

- Are you inspired by a book? Or do you need to hit some standards?
 - Use the text to drive your lesson/activity
 - What kind of materials do you need, or already have?
 - What's the age of your students?
 - Which STREAM target(s) are you hitting?

LESSONS AND ACTIVITIES

- ✓ Train BLOCK activity
- ✓ Coconut Sink or Float activity
- ✓ Wind machine activity
- ✓ Paint Chip sequencing
- ✓ Story telling with 2 dimensional objects
- ✓ Felt board colors exploration
- ✓ Map reading
- Lego creations
- Creature Features – 4 week collaboration with Art teacher/docent
- Rock, paper scissors
- Vehicles that go VROOM!
- Coding (Hour of Code)
- Shape comparison
- Dinosaur's and natural habitat
- Beebots

WHERE DO I START TO LOOK?

✓ Stem Works

www.stem-works.com

✓ WaKIDS information

www.k12.wa.us

✓ TPT

www.teacherspayteachers.com

✓ Pierce County Library

www.piercecountylibrary.com

✓ Pinterest

www.pinterest.com

✓ Common Core Standards

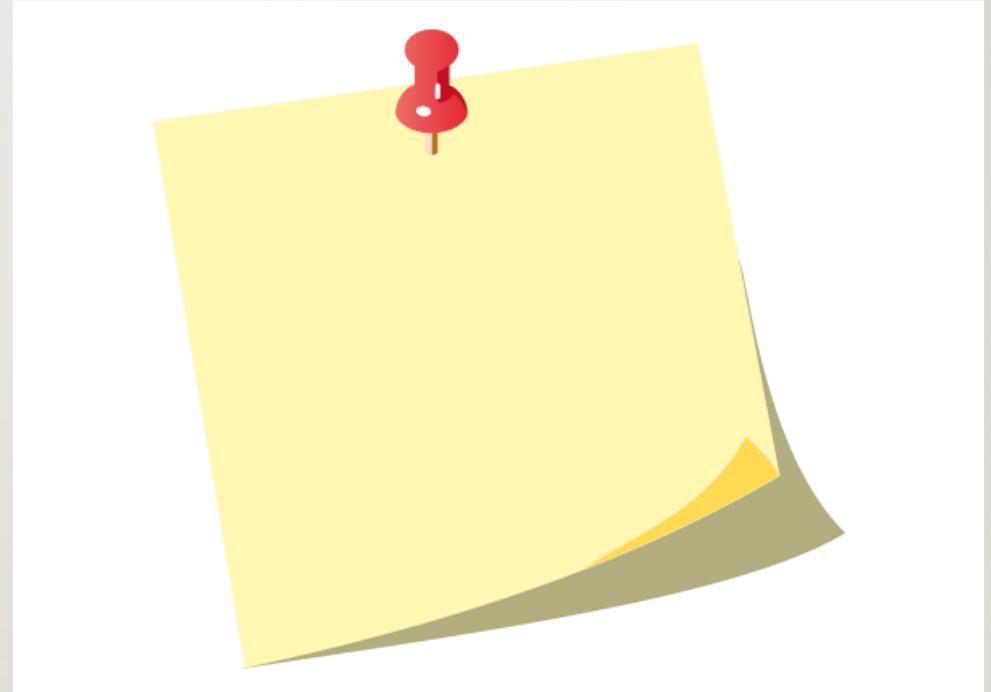
<http://www.corestandards.org>

T.A.G. EXIT TICKET

T: Tell something you liked

A: Ask a clarifying question

G: Give a suggestion



WANT TO CONTACT ERIN?

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VINE AND TPT

Erin G Bethel



Rainy City Teacher



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