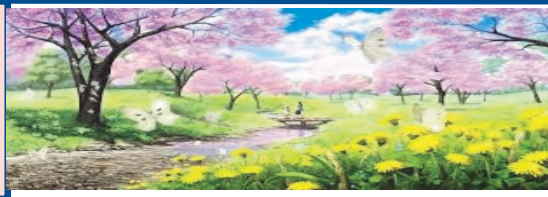


- ◆ Ideas for Fractions and Decimals
- ◆ Ideas for Geometry
- ◆ Dreambox Brief
- ◆ Useable Knowledge Article



The definition of a good mathematical problem is the mathematics it generates rather than the problem itself.  
~ Andrew Wiles

Middletown Township Elementary Schools

Fourth Grade - Third Quarter 2016

# Math Empowers<sup>4</sup>



Sometimes math centers that challenge many of our students, are irrelevant for more accomplished fourth graders. And often activities students can handle independently, are not rigorous enough. Sometimes the BEST activities for fourth graders simply don't provide us with enough valid information if we are not right there at the time. Differentiation is hard. Yet today, **Dreambox** provides us with targeted math concept development AND improves our focused time with small groups of students. So how do you **Dreambox**?

## Some Ideas for 4.NF.C Fractions and Decimals

- ◆ Using hundreds grids, have students color to illustrate equivalent fractions and decimals. For example:  $3/10$  of 100 blue and then show  $3/10 = 30/100 = 0.30$ —i.e., three tenths equals thirty hundredths.
- ◆ Have students routinely use mathematical language that connects fractions and decimals equivalents—e.g., read 0.4 as “four tenths”, 0.04 as “four hundredths”, 0.40 as “forty hundredths”, etc.
- ◆ Click and try one of these games:
  - ◆ [Chopper - Fractions & Decimals Edition](#)
  - ◆ [Estimate Decimals](#)
  - ◆ [Fruit Shoot](#)
  - ◆ [Order Decimals - Least to Greatest](#)



## Becoming a Math Person

WHY STUDENTS DEVELOP AN AVERSION TO MATHEMATICS — AND HOW TEACHERS CAN HELP CHANGE THEIR MINDS

Have you ever heard one of your students say, “I can't do this. I am not a math person!” According to HGSE Lecturer Noah Heller, the idea that there are “math people” and “not math people” is a social construct and not based on inherent characteristics. As teachers we can take steps to help students develop a growth mindset and encourage the idea that it takes determination and persistence to achieve success. Here are some ideas to achieve this mindset:

- ◆ **Create opportunities for cooperative learning.**
- ◆ **Give students the chance to productively struggle.**
- ◆ **Encourage participation, even if the student doesn't have the right answer yet.**
- ◆ **Re-envision math as a language.**

To read more click [here](#).



## Some Ideas for 4.G.A Geometry

- ◆ Have students use geoboards to illustrate points, lines, line segments, rays, angles, perpendicular lines, and parallel lines. Then have them copy them onto dot paper with markers and label each appropriately.
- ◆ Have students locate line segments in the classroom that are parallel, perpendicular, and intersecting but not perpendicular.
- ◆ Have students locate actual streets that are parallel, perpendicular, and intersecting but not perpendicular.
- ◆ Have students fold a piece of paper in half, draw a half heart, and cut out to illustrate symmetry.
- ◆ Have students trace polygons on paper and cut them out. Then have the students explore symmetry by folding them to determine a line or lines of symmetry.
- ◆ Click and try one of these games:
  - ◆ [Lines](#)
  - ◆ [Quadrilateral Quest](#)
  - ◆ [More About Symmetry](#)



Hope you are having a MATH-TASTIC year!

