

Common Core Aligned Instruction in Math



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Session Goals for Today

- To better understand math expectations outlined in the Common Core Standards
- To understand the methods and purpose for using various mathematical strategies and instructional approaches
- To share the school's vision for math at PS 198

Let's Do Some Math!

What do each of the given problems require a mathematician to do?

Standards for Mathematical Practice

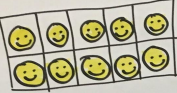
- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

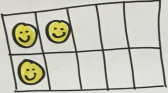
Standards for Mathematical Content

- Counting and Cardinality
- Operations and Algebraic Thinking
- Number and Operations in Base Ten
- Number and Operations—Fractions
- Measurement and Data
- Geometry

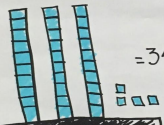
How Does A Standard Grow From Grade to Grade?


♥ First Grade ♥

10 =  = 1 group of ten

3 =  = If boxes are not complete used as singles

The foundation of place value
- organize data - visually - quickly see 10 = ten and ones

Grade one
 = 34 = 3 tens 4 ones = thirty-four

Grade 2
 hundreds is visually seen see attachment page 8 in handout

2nd Grade

Extend place value knowledge by viewing 10 tens as a new unit called "a hundred".
||||| ||||| → □

previous grade ↙ ↘ future grade

1st: know that 2 digit numbers are tens + ones. #'s
11-19 are composed of 1 ten + some ones.

3rd: apply place value knowledge to +, - w/in 1,000 and x by multiples of ten.

What Curricula Do We Use to Address the Standards?

Go Math:

- Frequent assessments, including Beginning/Middle/End of Year, Prerequisite skills, mid unit assessments
- Models a variety of strategies and approaches to solving problems

Supplemental Resources:

- Exemplars!
- Engage NY
- Context for Learning
- Continental Math
- Illustrative Mathematics
- Additional teacher created materials

Supporting Children At Home

- Emphasize:
 - fluency of basic math facts through games
 - going deeper-- through conversation about strategies and approaches to problem solving
 - real life applications of math
 - providing “brain teasers” and logic tasks

Questions?