

## ***The Times They Are a Changin'***

We appreciate your interest in the changes happening in curriculum in MBUSD. As we shift to the new California Content Standards (Common Core) our focus is on instruction to meet the needs of every student, thus creating a personalized education.

First, we began with Writing Workshop, where we teach the writer, not the essay. Students are allowed freedom in topic selection while staying within the given genre and teachers work to improve each student's writing through mini lessons with the whole class followed by one-on-one and small group conferences tailored to challenge and support each child.

Last year, we moved towards Reading Workshop, where student instructional and independent reading levels are identified using the Fountas and Pinnell Reading Assessment. MBUSD spent \$250,000 in purchasing classroom libraries and guided reading sets for each school, with the purpose of teaching students in their "just right books." We realize that there is a variance of reading levels in each classroom; therefore, we want to challenge and support all students through instruction in text that is of interest (students get to select what they want to read) and challenge (based on their reading level).

This year, as we continue our commitments to providing differentiated reading and writing instruction, we are continuing that theme in mathematics. How are we doing this? Through a balanced approach and research-based Cognitively Guided Instruction (CGI) in mathematics. As with Reading and Writing Workshop, CGI math curriculum has been mapped by a team of teachers that encompasses the new California Content Standards and identifies resources for teachers to use when engaging students in the identified learning outcomes. We are not teaching a textbook from cover to cover, but rather building a strong understanding of the "math behind the math" through the use of a variety of resources. Our focus is on creating a balanced approach between conceptual understanding, application, and procedural/skill fluency. The former California Standards Test and Content Standards heavily emphasized procedural/skill fluency and consisted often of predictable and lower level questions. Our goal is to have students think like mathematicians and be able to conceptually understand, as well as apply the mathematics in real life situations. Below is an example of a Grade 1 math problem. Students select which number (in parentheses) to place into the blank space. Note, there is a vast difference in

difficulty in these number sets and students are asked to solve the problem in two different ways to prove their answer. Additionally, based on student performance, teachers will adjust the number sets to appropriately challenge students at their individual level of understanding. This aligns with decades of CGI research as well as current research stating that students make more connections and build greater conceptual understanding by solving a problem multiple ways rather than a page of problems all the same way.

Ex:

Tyler gave his mother \_\_\_ pieces of candy for Mother's Day.

$\frac{3}{4}$  of the pieces of candy had nuts.

How many pieces of candy had nuts?

How many pieces of candy did not have nuts?

Solve using two different strategies.

$$(3 \times 25 + 3 \times 3)$$

$$(8 + 8)$$

$$(18 \times 25 + 102)$$

### **What are the standards? How can I review them?**

English Language Arts: <http://www.corestandards.org/ELA-Literacy/>

Mathematics Standards for Content: <http://www.corestandards.org/Math/>

Mathematics Standards for Practice (how students should engage in math and how teachers should teach): <http://www.corestandards.org/Math/Practice/>

### **What does this look like in the classroom? Here are some quick videos showing this type of mathematics:**

Elementary: <https://www.teachingchannel.org/videos/multiplying-fractions-lesson> and <https://www.teachingchannel.org/videos/multiplying-fractions-lesson>

Middle School: <https://www.teachingchannel.org/videos/stem-lesson-ideas-bungee-jump>

High School: <https://www.teachingchannel.org/videos/statistical-analysis-lesson> and <https://www.teachingchannel.org/videos/laws-of-sines-cosines-lesson>

The overall theme is continuing our shift to increase student-centered, personalized instruction that meets our students at their individual level. New SBAC testing in CA will also reflect these changes. Differentiated instruction is a major component of this work. All shifts are grounded in decades worth of research. So as Kid President says.. "Keep on, keeping on!"