



Math Weekly Tidbits

Maryland Common Core State Curriculum Framework
Maryland School for the Deaf

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Dear Teachers,

Happy Birthday, Dr. Seuss! And, Happy Read Across America Day!

So, again this has been a week of transition for us from lower elementary to upper elementary. We want to thank you so much for being so open to us coming in and out of your classroom and working with you. This has been such a great experience for us and we hope it has been for you as well.

In this week's newsletter you will find an article related to the role of the calculator in the mathematics classroom. This has always been a topic that has been highly questioned and talked about. This article talks about many of the myths related to allowing students to use calculators in their mathematics classes, especially at the elementary level.

We look forward to our continued work with you!

Have a great weekend!

Julie Tibbitt and Laura Riddell
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Ideas for this newsletter are always welcome!

The Role of CALCULATORS in Math Education

Many teachers have been sharing their frustrations about students who are truly struggling to understand operations and basic facts. They do not fluently add, subtract or multiply, even though they have been practicing such skills for years. If a student is not able to perform operations and that is hindering them from succeeding, then calculators should be used as an IEP accommodation. We feel that regular use of calculators will benefit every classroom starting in Kindergarten.

First, consider that our new curriculum is more rigorous on several levels. Some skills are no longer being reintroduced every year. A lot more critical thinking is built into the standards. Calculators will allow our students to move forward in conceptual understanding *and* critical thinking. The calculator is merely a tool to facilitate learning—very much like we are using Microsoft Publisher to compose this newsletter (rather than writing it by hand)! Also, the fifth Standard for Mathematical Practices asks that students “use appropriate tools strategically”. A lot of time is spent on “tedious” algorithms instead of what mathematics is *truly* about—reasoning and problem solving. Calculators will not do the “thinking” for your students!

There are many kid-friendly models available on the market. For example, the See ‘n’ Solve Visual Calculator has an oversized LCD screen that shows the entire problem (such as $9 \times 5 = 45$) in either horizontal or vertical display. The function buttons are very few, so they do not overwhelm the student. If our students can use DSS or pagers outside the classroom, then they certainly are capable of utilizing calculators!

Please take time to read this article, “The Role of Calculators in Math Education” (by Heidi Pomerantz) as it goes in much greater detail about the benefits that calculators offer mathematical education. <http://education.ti.com/sites/US/downloads/pdf/therole.pdf>



Calculators can build student confidence,
leading them to become active learners!

8 Standards for Mathematical Practice in LITERATURE

Here are some short literature pieces that we found, and we think they embody the 8 Standards for Mathematical Practice beautifully! Share these with your students and discuss how they embody some of the 8 Standards for Mathematical Practice.

The Hare and the Tortoise

The Hare was once boasting of his speed before the other animals. "I have never yet been beaten," said he, "when I put forth my full speed. I challenge any one here to race with me."

The Tortoise said quietly, "I accept your challenge."

"That is a good joke," said the Hare; "I could dance round you all the way."

"Keep your boasting till you've beaten," answered the Tortoise. "Shall we race?"

So a course was fixed and a start was made. The Hare darted almost out of sight at once, but soon stopped and, to show his contempt for the Tortoise, lay down to have a nap. The Tortoise plodded on and plodded on, and when the Hare awoke from his nap, he saw the Tortoise just near the winning-post and could not run up in time to save the race. Then said the Tortoise:

"Plodding wins the race."

SMART

My dad gave me one dollar bill
'Cause I'm his smartest son,
And I swapped it for two shiny quarters
'Cause two is more than one!

And then I took the quarters
And traded them to Lou
For three dimes—I guess he don't know
That three is more than two!

Just then, along came old blind Bates
And just 'cause he can't see
He gave me four nickels for my three dimes,
And four is more than three!

And I took the nickels to Hiram Coombs
Down at the seed-feed store,
And the fool gave me five pennies for them,
And five is more than four!

And then I went and showed my dad,
And he got red in the cheeks
And closed his eyes and shook his head—
Too proud of me to speak!

By Shel Silverstein

The Crow and the Pitcher

A Crow, half-dead with thirst, came upon a Pitcher which had once been full of water; but when the Crow put its beak into the mouth of the Pitcher he found that only very little water was left in it, and that he could not reach far enough down to get at it. He tried, and he tried, but at last had to give up in despair. Then a thought came to him, and he took a pebble and dropped it into the Pitcher. Then he took another pebble and dropped it into the Pitcher. Then he took another pebble and dropped that into the Pitcher. Then he took another pebble and dropped that into the Pitcher. Then he took another pebble and dropped that into the Pitcher. Then he took another pebble and dropped that into the Pitcher. At last, at last, he saw the water mount up near him, and after casting in a few more pebbles he was able to quench his thirst and save his life.

Little by little does the trick.