Dear Teachers,

The Common Core Math Standards do not specifically name reading, writing, or researching as goals. However, this still goes without saying. The 8 Standards for Mathematical Practice calls for the ability to “construct viable arguments and critique the reasoning of others”. This requires higher language functioning skills than what has been asked of our students in the past.

Content area teachers now face even more urgency to include reading and writing in their lesson plans. Math teachers in particular may have the least experience with teaching literacy, but it can definitely still be done! The benefits are high. Writing about complex mathematical problems can actually increase students’ understanding of the concepts and processes involved.

This newsletter contains a few ideas for reading and writing activities that elementary students can do independently or collaboratively at work stations.

Julie Tibbitt
Mathematics Curriculum Coordinator
Columbia and Frederick Campuses
Julie.Tibbitt@msd.edu
Ways to Incorporate Literacy in Math Work Stations

Ideas taken from Debbie Diller’s “Math Work Stations”; a must-buy!

1. Keep a basket full of picture books that students have already read. They can use these to create new problems.

2. Have students create and complete surveys, using a template to create a question and record data and circulating around the room to ask questions.

3. Create problems to go with a number. “If the answer is 3, what is the question?”. Have students write all around the 3, showing their thinking in pictures, numbers and words.

4. Use props and sentence frames to help with story-telling. Over time, remove the sentence frames.

5. Give the students a storyboard with a playground drawn on it. Use dice to roll numbers and tell stories such as “Two kids were on the swings. Two more kids joined them. How many kids are there now?” You can use story mats with different scenarios and counters for students to figure out solutions.

6. Use picture cards for students to develop ideas for story problems. Use dice for students to roll and take turns building the story problem. For example, a student has a picture of a book and rolls the numeral 2, and then says, “There are 2 books on the table.” Another student picks a second picture card showing scissors and rolls a 3 to finish the story, saying, “There are scissors on the table. How many things are on the table?” They then work together to draw a picture and write the story using numbers and words.

7. Write addition and subtraction facts books. For example: $1 + 1 = 2$ (two arms); $4 + 4 = 8$ (two dogs with four legs each).

8. Make a book focused on all the sums of a number. Make a separate page for each sum and draw a picture for the fact.

9. Write problems on index cards for the students to solve together.

10. Use vocabulary flash cards for students to create sentences. For example, “My orange looks like a sphere.”

11. Create story problems with wrong answers. Have students justify their right answers through writing.