

## **Math Standards Review Work Group Meetings**

Dates: June 20-21, 2016  
Location: Capitol Lake Visitor Center  
Time: 8:30 a.m. – 4:00 p.m. and 4:00 p.m. – 5:00 p.m. Table Lead Meeting

### **Day One (June 20, 2016)**

Members of the committee were welcomed back by Nicol Reiner, DOE Math Specialist, and thanked for the great work that was completed in the first session and their continued dedication to effective math education for the students of South Dakota.

#### **Objectives**

- Employ effective strategies to communicate and work as a team to revise the South Dakota Math Standards.
- Understand the standards [review process](#), priorities, and [timelines](#).
- Use the [Elements of Quality Standards](#) to guide grade level discussions and revise the mathematics standards for South Dakota.
- Use the documents, research, and resources in the shared Google folder to inform the k-12 math standards revision work.

Participants took time in the morning to review the progress from the previous work session. Participants were also reminded of the importance of the structure of the standards and vertical alignment. Small groups reviewed the Elements of Quality Standards and any relevant research they had read or shared that would be important to consider during the work session.

After the review of previous progress, participants spent the day reviewing standards in the remaining domains. The k-5 groups worked their grade level standards in Counting and Cardinality, Measurement and Data, and Geometry; 6-8 groups worked on standards in Probability and Statistics and Geometry; and 9-12 continued work on standards in Algebra and Geometry and started work on standards in Probability and Statistics. Changes to language, example additions and/or omissions were shared and consensus cards were used to accept or continue conversation on the proposed changes. Topics that needed more conversation were tabled for the next day. These topics included: the multiplication progression and the probability and statistics progression.

At the end of the day, small groups reviewed their progress and table leaders summarized and collected the information to share with other groups and guide the work for the next day. Participants were reminded that the next day's discussions would focus on priority areas along with tabled topics, to include: the progression for learning and understanding multiplication, the definition of both fluency and algorithm and their impact on vertical alignment, and the statistics and probability progression.

### **Day Two (June 21, 2016)**

The goals and objectives of the work were reviewed, and then participants started working in grade band groups on tasks relevant to their level. The 9-12 groups needed more time to finish reviewing standards in both Algebra and Geometry and to continue writing standards for the 4<sup>th</sup> course.

The k-8 groups started the day by reading selected excerpts from the research on fluency and algorithm in order to inform the upcoming discussion. After reading the excerpts, questions were answered and a definition for fluency was agreed upon by the group. Immediately following, a discussion was held to decide upon how the definition of algorithm

would be used in the standards, what standards would be affected, and what language would be adjusted. After a robust conversation, the k-8 groups came to consensus about changes in the standards. The 3rd, 4<sup>th</sup>, and 5<sup>th</sup> grade groups continued the conversation about the multiplication progression and also came to consensus about changes. Workgroup members will be looking forward to feedback from teachers across the state about these revisions.

After lunch, the Algebra workgroup met individually with 4<sup>th</sup> through 8<sup>th</sup> grade workgroups to clarify the probability and statistics progression. Workgroups from grades 3 – 8 continued to work through standards in domains that had not yet been reviewed. These domains included Fractions and The Number System.

As groups began to finish revising and reviewing standards, time was used by small groups to review other elements of standards documents. These elements included the overall introduction, grade level introductions, appendices, and glossary items. Each grade level workgroups also started to create a summary of changes and make suggestions for overall structure, roll-out and feedback, and professional development needs for a successful implementation.

Before ending the work session, grade level workgroups summarized the progress of their work for the table leads. It was determined at the table lead meeting that groups would like to have differing start times on the final day of work, July 12, 2016. Groups who needed additional standard writing, revision, and review time would come at 8:30 a.m. and other work groups would come at 10 a.m. to complete the final vertical reviews of Geometry, Fractions, and The Number System. The final reflection revealed great satisfaction by all participants in the process, in the work that was done together through conversations and consensus, and in the revisions that were made to the standards at all levels.

**Next Meeting:**

**Date:** July 12, 2016

**Location:** Capitol Lake Visitor Center

**Time:** 8:30 a.m. – 4:00 p.m. (HS Workgroups, 4<sup>th</sup> Grade Workgroup)  
10:00 a.m. – 4:00 p.m. (K-3 and 5-8 Workgroups)  
4:00 p.m. – 5:00 p.m. Table Lead Meeting