

Math Standards Review Work Group Meetings

Dates: June 6 & 7, 2016

Location: AmericInn/Ft. Pierre

Time: 8:30 a.m.- 4:00 p.m. and 4:00-5:00 p.m. Table Lead Meeting

Welcome (June 6, 2016)

All k-12 educators were welcomed by Nicol Reiner, DOE Math Specialist, and thanked by the department for their dedication to effective math education and the commitment each is making to the standards revision work over the upcoming months.

Objectives

- Participate in small and large group activities to focus upon effective teamwork, questioning strategies, and understanding the structure of standards
- Understand the standards [review process](#), priorities, and timelines
- Review the [Quality Standards Checklist](#) that will guide grade level discussions
- Use the documents, research, and resources in the shared Google folder to inform the k-12 math standards revision work

To model the process initially, all k-12 grades were asked to review a geometry standard for their grade level. The review process was modeled with small grade-level discussions, a review of grade levels above and below, a comment review, discussions, and a vertical alignment k-12 for the standard. Consensus cards were used to indicate acceptance to changes made per grade and/or across all grade levels.

After practicing the process with the initial geometry standard, review work continued in domains where concepts build and connect vertically through high school. The k-5 groups worked on standards in Operations and Algebraic Thinking; 6-8 worked on standards in Expressions and Equations, and 9-12 worked on standards in Algebra. All changes to language, example additions and/or omissions were shared and consensus cards were used to accept or continue conversations on the proposed changes.

During the work, discussions about fluency, its definition, and its impact on vertical alignment of the standards was tabled until the next meeting on June 20-21, 2016. There was group consensus that more reading and research needed to be done before the conversation could be continued.

End of day reflections from participants and table leads provided positive feedback on the team building activities that provided focus, effective questioning strategies, and assisted them in moving forward with the review work. Suggestions on pacing of the work and the need to have more grade band conversations prior to k-12 vertical alignment time were given.

Day Two (June 7, 2016)

On the second day, standards review work continued with the domains of Number and Operations in Base Ten (k-5), Ratios and Proportions (6-7), and Functions (8-12). Grade level and vertical conversations focused upon language, progressions, and consistency in language and examples. Discussions were had throughout the day both within grade levels and vertically to help grade level groups achieve consistency in use of examples within the standards. Examples were deemed appropriate when they

would clarify the language or intent of the standard, but were not to be included if their use could limit the intent or rigor of the standard.

During the work on the second day, discussions about “standard algorithm”, its definition, and its impact on vertical alignment of the standards was tabled until the next meeting on June 20-21, 2016. There was group consensus that more reading and research needed to be done before the conversation could be continued. A further discussion of the use of proof in Geometry was also tabled during the day’s discussions to be continued on June 20-21, 2016.

Final reflections from participants and table leads indicated a sense of accomplishment in the work completed in the two day session. Participants were reminded of the tabled topics: fluency, standard algorithm, and proof. Participants were encouraged to continue reading and researching these topics to inform the discussions that would happen at the next meeting. Research on each topic, along with progression documents for each domain, were provided to participants in a shared Google folder. Participants were encouraged to gather and bring any additional resources or research that would be helpful in the upcoming meeting.

Next meeting:

Dates: June 20 & 21

Location: Capitol Lake Visitor Center/Pierre

Time: 8:30 a.m.- 4:00p.m. and 4:00-5:00 p.m. Table Lead Meeting