

## Science Standards Work Group Overview

The work group goal is to evaluate the existing State of South Dakota Science Standards and to determine the next steps for revision. All work will be framed on the current vision for science education in South Dakota as indicated by existing State of South Dakota Science Standards. Any changes to the existing standards will reflect the most current research in science education to help ensure that the standards meet the needs of all South Dakota students.

SCIENCE STANDARDS WORK GROUP			
First Name	Last Name	Occupation	Employer or Business Name
Marc	Aisenbrey	K-5 Teacher	Elk Point - Jefferson Public Schools
Michael	Amolins	HS Teacher	Harrisburg School District
Michelle	Bartels	6-8 Teacher	Hamlin School District
Mari	Biehl	SDIL STEM Coordinator	PAST Foundation and Mid Central Educational Cooperative
Barbara	Boone-Graves	6-8 Teacher	Sioux Falls Public Schools
Julie	Dahl	Post-Secondary	CAMSE-BHSU
Donna	DeKraai	K-5 Grade Teacher	Brookings School District
Cathy	Ezrailson	Post-Secondary	University of South Dakota
Dorothy	Gillespie	6-8 Teacher	Pierre Indian Learning Center
Mark	Iverson	K-5 Teacher	Castlewood School District
Roby	Johnson	6-8 Teacher	Holgate Middle School
Mogard	Kate	K-5 Teacher	Brookings School District
Nicole	Keegan	6-8 Teacher	Rapid City Area Schools
Lisa	Ketelhut	SPED Teacher	Tea Area School District
Kevin	Lein	Administration	Harrisburg School District
Frances	Linn	HS Teacher	Rapid City Area Schools
Justin	Lovrien	HS Teacher	Brandon Valley High School
Bobbie	Matthews	Grade 5-8 ESL	Huron Middle School
Elizabeth	McMillan	Parent	Sanford Health
Matthew	Miller	Post-Secondary	South Dakota State University
Jeff	Noll	HS Instructional Coach	Sioux Falls School District
Kathy	O'Hara	K-5 Teacher	West Central School District
Julie	Olson	HS Teacher	Mitchell Senior High
Jacqueline	Omland	Post-Secondary	Northern State University
Betsy	Schamber	6-8 Teacher	Madison Central Schools
Marie	Steckelberg	Science Consultant	Steckelberg Consulting, LLC
Molly	TenBroek	9-12 Teacher	McIntosh High School
Michelle	VandeWeerd	Administration	Brookings School District
Sarah	Weber	K-5 Teacher	West Central School District
Janelle	Whitlock	Informal Education	Kirby Science Discovery Center

### *Meeting #1: January 24-January 25*

**Day one:** This day included a goal for the committee to understand the background of the creation of the existing status of South Dakota Science Standards. Day one also included a thorough review of research in science education that led to the creation of current South Dakota Science Standards and also the research that has been done since that creation.

**Day two:** The group created questions, based in current research and practice, which could be used to evaluate the current South Dakota Science Standards. The process for creating these questions was based on what the work group values in science education and what was supported in research. The next meeting will allow the workgroup to evaluate the current South Dakota Science Standards and any other research-based standards under consideration. Prior to the second meeting, the SDDOE will review the questions to reference existing research in science education which supports the use of those questions in the evaluation process.

### *Meeting #2: February 28 – March 1*

**Day one:** Begin the review of other state's standards and other documents that have been developed since the release of the Framework for K-12 Science Education. The workgroup selected and reviewed Massachusetts, South Carolina, and the Next Generation Science Standards for review along with the current South Dakota Science Standards. Strengths and weaknesses of each set of standards were identified.

**Day two:** Finished the review of other state's standards. The workgroup also developed formatting recommendations and suggestions for how to revise the South Dakota science standards.

### *Meeting #3: March 28 – March 29*

**Day one:** Begin the revision by working in grade-banded content workgroups to ensure accuracy of standards placement. Workgroups selected, revised and rewrote standards from the sources reviewed in meeting #2.

**Day two:** Finished working in grade-banded content workgroups. Worked across the entire group to ensure language consistency and formatting were similar.

### *Meeting #4: April 25 – April 26*

**Day one:** Workgroups were arranged in three groups: Earth/Space Science, Life Science and Physical Science. Each group had representation from all grade-levels. At this stage in the review process, the workgroup's primary goal was to establish coherence for the document in the form of a vertical progression. The workgroup ensured that all standards progressed throughout K-12. Any terminal standards were removed or extended to ensure that they built upon previous learning and set the stage for continued learning in the future.

**Day two:** Finished working in subject-specific workgroups. Standards were determined to be finished by the work group. The group decided upon structure and beginning language for the introduction, bibliography and other language needed in the final standards document. These components will be finalized within the standards will be completed by subgroups of the standards workgroup throughout the summer of 2014. A public survey was generated and listed on the SDDOE website for feedback on the drafted standards and was also emailed to science teachers for comment. Comments will be sent back to the workgroup to determine if action is needed.