

**2015-2016 Science Standards Review Historical Timeline**  
**Wyoming Department of Education**

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**Timeline for Science Standards Review Process**

Date(s)	Event	Notes
<b>March 17, 2015</b>	WY State Board of Education (SBE) Meeting	<p>Motion carried that a process be established that would reengage a science standards committee...to use the work of the previous committee and add additional resources. Public input would be given before a recommendation goes to the SBE. Also, the committee will expand to include additional membership to ensure quality science standards.</p> <p>Motion carried to also direct the WDE to establish a narrative communication committee to support the SSRC in developing the narrative surrounding the support of implementing the standards.</p> <p>SBE Minutes: <a href="http://edu.wyoming.gov/downloads/board/2015/sbe-mar-2015-minutes.pdf">http://edu.wyoming.gov/downloads/board/2015/sbe-mar-2015-minutes.pdf</a></p>
<b>April 3, - 20, 2015</b>	Call for participants for the Science Standards Review Committee (SSRC)	<p>Press Release: <a href="http://edu.wyoming.gov/downloads/communications/pr/2015/science-standards-review-committee-survey-2015.pdf">http://edu.wyoming.gov/downloads/communications/pr/2015/science-standards-review-committee-survey-2015.pdf</a></p>
<b>May 20, 2015</b>	SSRC WebEx Webinar (1 hr.)	<p>PowerPoint: <a href="http://edu.wyoming.gov/downloads/standards/2015/SSRCwebinar052015.pdf">http://edu.wyoming.gov/downloads/standards/2015/SSRCwebinar052015.pdf</a></p>
<b>May 26-28 &amp; June 8-9, 2015</b>	<p>Regional Public Input Meetings  <a href="#">(see summary)</a>  <a href="#">(see table for locations)</a></p>	<p>Press Release: <a href="https://edu.wyoming.gov/downloads/communications/pr/2015/Community-Meetings-on-SSRC.pdf">https://edu.wyoming.gov/downloads/communications/pr/2015/Community-Meetings-on-SSRC.pdf</a></p> <p>PowerPoint: <a href="http://edu.wyoming.gov/downloads/standards/2015/science-community-mtgs-05-15.pdf">http://edu.wyoming.gov/downloads/standards/2015/science-community-mtgs-05-15.pdf</a></p>
<b>June 15-16, 2015</b>	<p>First face-to-face meeting with SSRC at Casper College  <a href="#">(see summary)</a></p>	<p>Agenda: <a href="http://edu.wyoming.gov/downloads/standards/2015/SSRCagenda061515.pdf">http://edu.wyoming.gov/downloads/standards/2015/SSRCagenda061515.pdf</a></p> <p>PowerPoint: <a href="http://edu.wyoming.gov/downloads/standards/2015/SSRCppt061515.pdf">http://edu.wyoming.gov/downloads/standards/2015/SSRCppt061515.pdf</a></p>
<b>August 11-12, 2015</b>	<p>Second face-to-face meeting with SSRC at Holiday Inn in Riverton  <a href="#">(see summary)</a></p>	<p>Agenda: <a href="http://edu.wyoming.gov/downloads/standards/2015/SSRCagenda081215.pdf">http://edu.wyoming.gov/downloads/standards/2015/SSRCagenda081215.pdf</a></p>
<b>November 13-15, 2015</b>	<p>Third face-to-face meeting with SSRC at Natrona County Central Services Facility in Casper  <a href="#">(see summary)</a></p>	<p>Agenda: <a href="http://edu.wyoming.gov/wordpress/wp-content/uploads/2016/01/2015-SSRC-Agenda-11.13.15.pdf">http://edu.wyoming.gov/wordpress/wp-content/uploads/2016/01/2015-SSRC-Agenda-11.13.15.pdf</a></p>
<b>February 5-6, 2016</b>	<p>Fourth face-to-face meeting with SSRC at Hathaway Building in Cheyenne  <a href="#">(see summary)</a></p>	<p>Agenda: <a href="http://edu.wyoming.gov/wordpress/wp-content/uploads/2016/01/2016-Feb.-SSRC-Agenda.pdf">http://edu.wyoming.gov/wordpress/wp-content/uploads/2016/01/2016-Feb.-SSRC-Agenda.pdf</a></p>

## Timeline & Stipends for Science Standards Review Committee Meetings

Meeting Type	Date	Length of Meeting	Location	# in Attendance	Stipend Amount	Total Amount for Stipends
<b>Webinar with homework</b>	May 20, 2015	2.5 hrs.	Video Conference – WebEx	41	\$100	\$4,100
<b>Face-to-Face</b>	June 15-16, 2015	2 days (15 hours)	Casper – Casper College	38	\$300/day	\$22,650
<b>Face-to-Face</b>	August 11-12, 2015	2 days (15 hours)	Riverton – Holiday Inn	29 (8/11) 24 (8/12)	\$300/day \$150/half day	\$15,900
<b>Homework</b>	Oct. – Nov. 2015	At own pace	At own location	37	\$50	\$1850
<b>Face-to-Face</b>	November 13-15, 2015	2.5 days (23.5 hours)	Casper – NCSD#1 Central Services Facility	32 (11/13) 35 (11/14) 34 (11/15)	\$300/day \$150/half day	\$24,600
<b>Webinars (7 sub-groups)</b>	December 9, 2015 – January 9, 2016	2 hrs. each (14 hours)	Video Conference – WebEx	Varied	\$100/webinar	\$3,100
<b>Face-to-Face</b>	February 5-6, 2016	2 days	Cheyenne – Hathaway Bldg.	18 (2/5) 18 (2/6) 20 overall	\$300/day \$150/half day	\$10,200
						<b>\$82,400</b>

## 2015 Regional Community Input Meetings for Science Standards Review

Date & Time	Location & Address	Room	# in Attendance	# that gave Written Comment
May 26, 2015 6-7:30 pm	Powell High School 1151 E. 7 <sup>th</sup> St. Powell, WY	Commons Area	30	16
May 27, 2015 6-7:30 pm	Gillette College 300 W. Sinclair Gillette, WY	Flex Space 136A-C	8	7
May 28, 2015 6-7:30 pm	NCSD #1 District Office 970 N. Glen Rd. Casper, WY	Jefferson East Room	15	12
June 8, 2015 6-7:30 pm	LCSD #1 District Office 2811 House Ave. Cheyenne, WY	Storey Gym Board Room	44	31
June 9, 2015 6-7:30 pm	Evanston High School 701 W. Cheyenne Evanston, WY	Seminar Room	15	10
		Sub-Total	112	76
Closed 6/12/15	Collected Online on WDE Website			135
			<b>TOTAL</b>	<b>211</b>

## 2015 Regional Community Input Meetings for Science Standards Review

Each meeting began at 6:00 PM with a warm introduction by Brent Young, Laurie Hernandez, and Mike Cosenza. Throughout the 20-minute presentation, the public was informed on the standards review authority, the committee selection process and makeup, roles of the WDE consultants and the content committee, review process goals and objectives, options for committee review of standards, design criteria, definitions, and a timeline. The presentation concluded with a short YouTube video titled, *Why Excellent Science Standards Are Important*, which contained commentary from Superintendent of Public Instruction Jillian Balow, SBE Chairman Pete Gosar, and UW Professor Brent Bowers. A PDF copy of the presentation with video can be found here: <http://edu.wyoming.gov/downloads/standards/2015/science-community-mtgs-05-15.pdf>

After the formal presentation, community members were asked to write a short bio and reflect on two questions stemming from the video:

1. Why do you think excellent science standards in Wyoming are needed?
2. What would you like to share with the standards review committee?

Participants were also allowed time during the 1-hour meeting to verbally share their thoughts on these two questions. A public survey/form with the same two questions was linked to the WDE website for those who could not attend the meetings in person. Between the meetings and the online survey, there were 211 responses. Comments were very diverse, but the overall

summary revealed that Wyoming residents simply want the best science standards for their children; that they want them to be able to be informed citizens and able to be globally competitive. Public input from the meetings and the online survey can be found by following this link: <http://edu.wyoming.gov/downloads/standards/2015/SSRC-public-input-read-only.xlsx>

## Summary of 2015 Science Standards Review Committee (SSRC) Meetings

### **Wednesday, May 20, 2015, WebEx Webinar, Conference call / Online:**

This was the first meeting of the new committee, which is comprised of 20 returning members from the 2012 review committee and 20 new members that were selected from the “call for participants” pool.

The purpose of this videoconference was to discuss the review timeline, clarify the review process and meeting procedures, answer questions pertaining to national and state science standards, and define common science terminology.

### **Monday, June 15, 2015 - Tuesday, June 16, 2015, Casper College, Casper:**

This was the first face-to-face meeting of the Science Standards Review Committee (SSRC). Thirty-eight (38) members were in attendance over the course of this two-day meeting.

The meeting convened at 10:00 AM on Monday, June 15, 2015 with a welcome and introductions. A good portion of the morning and early afternoon was spent on reviewing national and state science standards, as well as the comments from regional community input. The discussion centered on an evaluation of the current 2008 Wyoming Science Content & Performance Standards and the possibility of adopting standards based on national research and other exemplar states’ science standards. The committee broke out into four subcommittees, two elementary subcommittees (grades K-2 & 3-5), one middle school subcommittee (grades 6-8), and one high school subcommittee (grades 9-12). Each subcommittee discussed and met consensus on the approach they’d like to whole committee (SSRC) to take with the science standards. The group came to consensus on base standards to be used as a foundation (backbone), with revisions/additions/adaptations as the committee sees fit, for developing new Wyoming Science Content & Performance Standards.

For the remainder of the afternoon, the SSRC broke out into four subcommittees. Each subcommittee was comprised of at least one higher education educator, one parent, one community/business member, and teachers from varying grade levels.

Each subcommittee compared the current 2008 Wyoming Science Content & Performance Standards to the base standards, looking closely at content, rigor, and grade level appropriateness. The subcommittees spent the rest of the afternoon and all of day two (Tuesday, June 16, 2015) dissecting the base standards by topic and Disciplinary Core Idea (DCI). Public input was heard and respected by the committee as many changes were made to clarification statements to make them more “Wyoming specific”.

The subcommittees agreed to meet via web conference (Google Hangouts, etc.) to discuss and come to consensus on some of the more controversial topics before the next face-to-face meeting.

**Tuesday, August 11, 2015 - Wednesday, August 12, 2015, Riverton Holiday Inn Conference Center, Riverton:**

This was the second face-to-face meeting of the Science Standards Review Committee (SSRC). Twenty-nine (29) members were in attendance over the course of this 2-day meeting.

The meeting convened at 8:00 AM on Tuesday, August 11, 2015 with a welcome and introductions. The agenda was modified to meet the needs of the subcommittees that morning. A good portion of the morning and early afternoon was spent on seeking consensus on revisions, additions, and adaptations to the base standards (new proposed Wyoming Science Content & Performance Standards).

For the remainder of the afternoon, the SSRC combined subcommittees to form two subgroups. Mike Cosenza assisted the K-5 subgroup which was composed of the two elementary subcommittees, and Laurie Hernandez facilitated over the 6-12 subgroup which was comprised of the middle and high school grade bands. These subgroups were charged with vertically aligning the standards and seeking consensus on the changes made to the performance expectations that each subcommittee met consensus on in their morning/afternoon breakout.

The second day was devoted to whole committee (K-12) alignment and seeking consensus on changes made to the performance expectations (standards) in the subgroups from day one. It was agreed upon by the committee to extend the half-day session into a full day to meet this goal. There was a lot of discussion on grade level appropriateness and public perception of the language on the content expectations. The SSRC used Wyoming specific examples as needed and did a great job aligning the expectations across grade bands.

The SSRC agreed that future face-to-face meetings will need to take place to finalize the standards draft and discuss the integration of Engineering & Science Practices. This meeting concluded on Wednesday, August 12, 2015 at 4:00 PM.

**Friday, November 13, 2015 - Sunday, November 15, 2015, Natrona County School District Central Services Office, Casper:**

This was the third face-to-face meeting of the Science Standards Review Committee (SSRC). Thirty-five (35) members were in attendance over the course of this 2.5-day meeting. Laurie Hernandez, WDE Supervisor of Standards, facilitated the meeting. Jill Stringer and Monica Mosier from the WDE Standards Team assisted with facilitation. David Yanoski from REL Central also helped facilitate as needed.

The meeting convened at 9:30 AM on Friday, November 13, 2015 with a welcome, introductions, a review of completed work, and a brief overview of the goals for this meeting. Laurie Hernandez presented two different formats for the standards and facilitated a discussion about selecting the best layout. The committee decided to use both documents with the rationale that one would be the most applicable for a classroom teacher, and the other would be best for a principal, curriculum director, or instructional facilitator.

The remainder of the day was devoted to the large group examining changes made to the standards and benchmarks in August by the grade-band sub-groups. K-5 standards were projected on one screen, and middle and high school were projected on another screen. For

each standard and benchmark where changes were made, the SSRC (whole group) read, asked questions, discussed, and met consensus.

Some additional supporting documents were proposed, including a matrix to show the progression of standards. There was agreement that this could support parents or citizens that were concerned that a teacher might be omitting certain standards in the elementary grades, by clearly showing what standards are coming up or have already been taught in previous grades. The meeting concluded at 5:30 with an overview of the goals for the following day.

The meeting convened at 8:00 AM on the second day and began with the SSRC finishing their discussion and meeting consensus on the remaining benchmarks. A small group proposed to delete HS-PS4-4 and add an engineering standard to ensure evaluating claims is covered in all of the content areas. The small group reasoned that the content of this standard is adequately covered in the surrounding standards. Consensus was met to delete this standard.

As a whole group, the committee reviewed stakeholder input from the groups Ag in the Classroom and the Petroleum Association. Members were able to ask questions, discuss, make additional changes, and meet consensus.

The remainder of the meeting was devoted to work in sub-committee groups: Concerned Citizens Document, Parent Group Statement, Business Statement, Changes Made List, and the Rationale/Historical Document. Committee members selected an area where their expertise would be most valuable, and each small group worked to draft their document. The meeting concluded at 5:30 with an overview of the goals for the following day.

The meeting convened at 8:00 AM on Sunday, November 15 with the small groups completing their documents and presenting it to the whole group for comments and suggestions. The whole group again reviewed some final changes made to the standards to read, ask questions, discuss, and meet consensus. Then, Grade-Level Sub-Groups met and split-up duties to accomplish a variety of alignment tasks such as adding to the glossary, looking for standards in other content areas that connect, connecting ISTE standards, checking ETS connections, and bringing forth any concerns where changes made would affect other parts of the standards documents.

The whole group met again briefly to discuss next steps. It was proposed that the finalizing of the work of the Small Groups and Grade-Level Sub-Groups could be completed in webinars. All members were given access to a Google Drive folder containing all of the documents so they could comment on the work and make changes as needed. The meeting concluded at 1:30 PM on Sunday, November 15, 2015.

**Friday, February 5, 2016 - Saturday, February 6, 2016, Hathaway Building, Cheyenne:**

This was the fourth face-to-face meeting of the Science Standards Review Committee (SSRC). Twenty (20) members were in attendance over the course of this 2-day meeting. Weather was an issue for some making it to the meeting as we had high winds blowing snow across the roads. Laurie Hernandez, WDE Supervisor of Standards, facilitated the meeting. Jill Stringer from the WDE Standards Team assisted with facilitation.

The meeting convened at 8:30 AM on Friday, February 5, 2016 with a welcome and a heartfelt thanks from Superintendent Balow and Dicky Shanor, WDE Chief of Staff. Laurie Hernandez

reviewed the work done during small group webinars and gave a brief overview of the agenda and the desired outcomes for this meeting.

The committee reviewed and met consensus on the business statement for the standards document. The committee also broke out into grade-band groups to work on grade-level statements, adding connections to other Wyoming content and ISTE standards, determined vocabulary words to be added to the glossary, and reviewed the standards documents for accuracy.

The whole committee reconvened and discussed items for uniformity across the grade bands. Laurie asked the committee to finish their review of the standards document for homework and be ready to discuss issues with their grade-band committees in the morning. The meeting concluded at 5:41 PM with an overview of the goals for the following day.

The meeting convened at 8:00 AM on the second day and began with the SSRC discussing the homework followed by members meeting in their grade-band groups to finish reviewing and making adjustments to the standards documents. The whole committee reconvened, reviewed, and met consensus on the parent statement for the standards document. Members broke out into small groups to work on the following: Introduction/Rationale, Concerned Citizens Letter, FAQ document, and a list of Appendices to be attached to the standards document.

The whole committee resumed and small groups shared their work with the larger group. Discussion and clarification was a priority during this time, and the SSRC made final decisions as to what documents would be helpful and should accompany the standards documents. The committee decided to have one master glossary instead of breaking out by grades or grade-bands. It was also decided to include the ISTE standards but to revisit these later as they are in the process of being revised. The committee would like to ensure the more current ISTE standards are incorporated in the Wyoming Science Content & Performance Standards. The meeting concluded at 4:32 PM.