

HB1490 Secondary Science Work Group Update

I. Statement of WG objective (specific to each WG)

- a. Review and develop 6-12 Science Standards for the State of Missouri

II. Description of WG organization – Chair, Vice Chair, etc. and whether the WG is full

- a. Clara Bennion – Chair
- b. Kimberly Benz – Vice Chair
- c. Work Group is not full. The following individuals have not reported.
 - i. Scott Goldstein – appointed by MSBA
 - ii. Jason Frencken – appointed by Speaker
 - iii. Rodney Wolken – appointed by State Board – Statewide Organization for Career and Technical Education
 - iv. Troy Sadler – appointed by State Board – Head of Teacher Prep Program
 - v. Natalie Frankenberg – appointed by Lieutenant Governor’s office
 - vi. Mike Szydowski – appointed by Governor’s office – no longer participating

III. Progress report describing consensus of the WG regarding what has been accomplished and the remaining issues to be addressed. This could include a consensus estimate of percent completion.

- a. On Monday September 22, 2014, there were 12 of the 17 appointed workgroup members present at 9am in the Harry S. Truman Building. This process started with much clarification and discussion regarding HB 1490, defining our task, as well as formulating the rules by which our group will operate as we navigate through this process. The meetings on both September 22nd and 23rd were organizational in nature and included much needed open discussion in order to create a working relationship and understanding among workgroup members. At this meeting we also started looking into what documents would be valuable resources going forward to develop the best standards for Missouri students.
- b. To conclude these first two days of meeting, the workgroup members agreed on a few items:
 - i. Current Secondary Science GLEs and CLEs are lacking in the area of having clear performance expectations. These GLEs and CLEs also are not the easiest to navigate and there are many items that do not have a DOK level determined.
 - ii. Current GLEs and CLEs also do not include engineering and technology, which is an important component of recent STEM initiatives.
 - iii. Our workgroup decided that in order to know that we reach the goal of having college-ready students that we need to know what colleges are looking for. For that reason we decided to examine the Missouri Higher Education Curriculum Alignment Initiative (CAI).
 - iv. We also decided that the “one page per core concept” format of the proposed Next Generation Science Standards (NGSS) was organizationally appealing to the classroom teacher. For this reason, as well as the clear performance expectations and STEM concepts, NGSS was chosen as another document that our group will use as a resource.
 - v. Other documents that were recommended and agreed upon to use as resources are the 2006 Massachusetts standards and 2010 South Carolina standards.
- c. Workgroup members reconvened on October 2nd and 3rd at the same location and started off with some housekeeping items such as identifying who was in attendance, how we may be able to reach group members that had not yet joined us but were on the list of appointees, and making sure that all contact information among the group was correct. We also felt that it was important that we did not go forward until we met with the Elementary Science workgroup to see what documents they were using as resources, what they were using as a starting point, and to stress the importance of collaboration between the groups as we go forward to ensure that there will not be a knowledge gap between elementary and secondary standards.
- d. These two working days were spent familiarizing ourselves with and discussing the NGSS document for high school along with the CAI document. We cross-referenced the two documents and discussed concerns that may arise with specific performance expectations as they are worded in the NGSS document.

- e. During the October 20-21 session, the educators in the group looked at age appropriateness and course appropriateness of the standards and expectations as they are. The performance expectations were then organized by current strands (i.e., the blue placemat).
- f. The parent workgroup members started to cross-reference the Massachusetts, South Carolina, and Missouri standards with NGSS and CAI in order to find differences as well as suggestions for verbiage.
- g. Other items discussed include developing a public survey containing performance expectations as proposed by the WG in order to receive feedback from a larger audience, such as other Missouri science educators, administrators, professionals, and parents.
- h. Elementary and Secondary Science WGs met and discussed format and content of a document useable at both levels. Elementary graciously shared their document format with us. Both groups seem to be moving towards vertical alignment.

IV. Description of remaining steps to completion and the WG plan for completion

- a. Set schedule for subsequent meetings.
 - i. Next scheduled meeting is Thursday, January 15 and Friday, January 16, 2015.
- b. Finalize verbiage of expectations.
- c. Format proposed expectations into a useable document that is teacher friendly.
- d. Conduct preliminary survey of proposed expectations.

V. Identification of obstacles to overcome or tools/information required to assure success

- a. Lack of financial backing for mileage, food, substitute cost, and lodging for educators and parents
- b. Lack of a complete workgroup with no contact information for missing members
 - i. Have they been contacted?
 - ii. Can you provide an update on their status?
 - iii. Will the appointing body please contact these people or appoint new members?

VI. Any other issues important to the particular work group