

Final Draft Academic Standards in Science and History/Social Studies

December 19, 2003



Overview

The release of the final draft of academic standards for science and social studies is the culmination of five months of work by a citizen committee charged by the legislature and appointed by Commissioner Cheri Pierson Yecke to present new standards to the legislature in 2004.

The final draft represents many changes made based on an outpouring of public input gathered at public hearings around the state and through the department's Web site.

The Academic Standards Committee

Hundreds of dedicated Minnesotans answered the call to help us develop new academic standards. Approximately eighty individuals were selected, based on their content knowledge and experience and their passion for academic excellence and high standards for children. The committee members serving on the History/Social Studies and Science committees include parents, educators, representatives of the business community and higher education representatives. Committee members are from Minnesota communities across the state.

Thirty-six members of the committee are classroom teachers (43%).

Six members of the committee are K-12 administrators.

Thirteen members of the committee are from higher education.

Thirty-four members of the committee are from rural Minnesota (40%).

Ten members of the committee reside in the cities of St. Paul and Minneapolis.

Unprecedented Public Input Process

The Department used an unprecedented public input process for the proposed standards. Prior to 2003, this level of public participation had not previously been used in Minnesota when changes were made to academic standards for our public schools.

Starting on September 8th, fourteen public meetings were held across the state, with a total number of attendees nearing 2,000 people. Over 450 people testified at these public hearings and 1,288 comments were received about the standards on the department's Web site.

The Science Standards

The Minnesota Academic Standards for Science are divided into four main strands:

- I. History and Nature of Science
- II. Physical Science
- III. Earth and Space Science
- IV. Life Science

In grades K-5, students and teachers will find standards and benchmarks in all four strands as students are introduced to science. In middle school, the committee organized the standards and benchmarks so that a full year could be spent on one subject area (Physical Science in grade 6, Life Science in grade 7, Earth and Space Science in grade 8).

The standards for high school science contain all four strands.

A minority report was filed with the Commissioner for the science standards signed by four members of the committee. They suggest changes to two benchmarks dealing with the issue of evolution.

The History/Social Studies Standards

The Minnesota Academic Standards for Social Studies are divided into six main strands:

- I. U.S. History
- II. World History
- III. Essential Skills
- IV. Government and Citizenship
- V. Geography
- VI. Economics

In grades K-3, students and teachers will find standards and benchmarks in all of the strands as students are introduced to social studies. Starting in fourth grade, the committee organized the standards and benchmarks with more concentration on individual subject areas:

Fourth Grade: World History, Geography, Local History

Fifth Grade: U.S. History

Sixth Grade: Minnesota History, World History

Seventh Grade: U.S. History

Eighth Grade: Geography

The standards for high school include all of the major strands. In addition, the World History standards are divided into World History I and World History II, each containing standards and benchmarks appropriate for one semester of learning.

Perception Versus Reality

How the Most Common Criticisms of Standards Are Addressed in the Final Draft

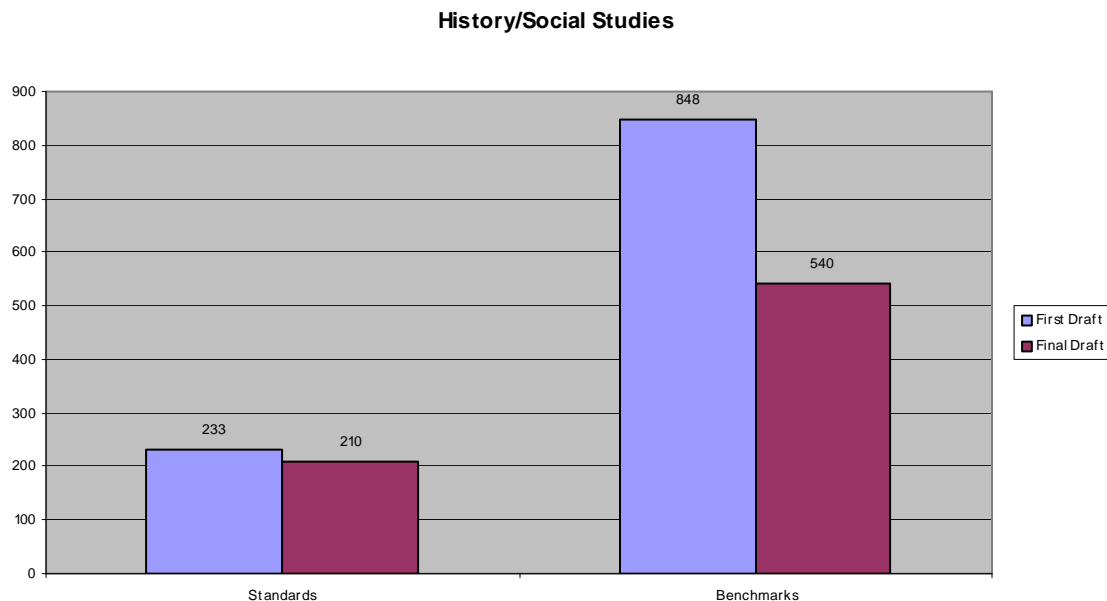


1. There are too many standards and benchmarks.

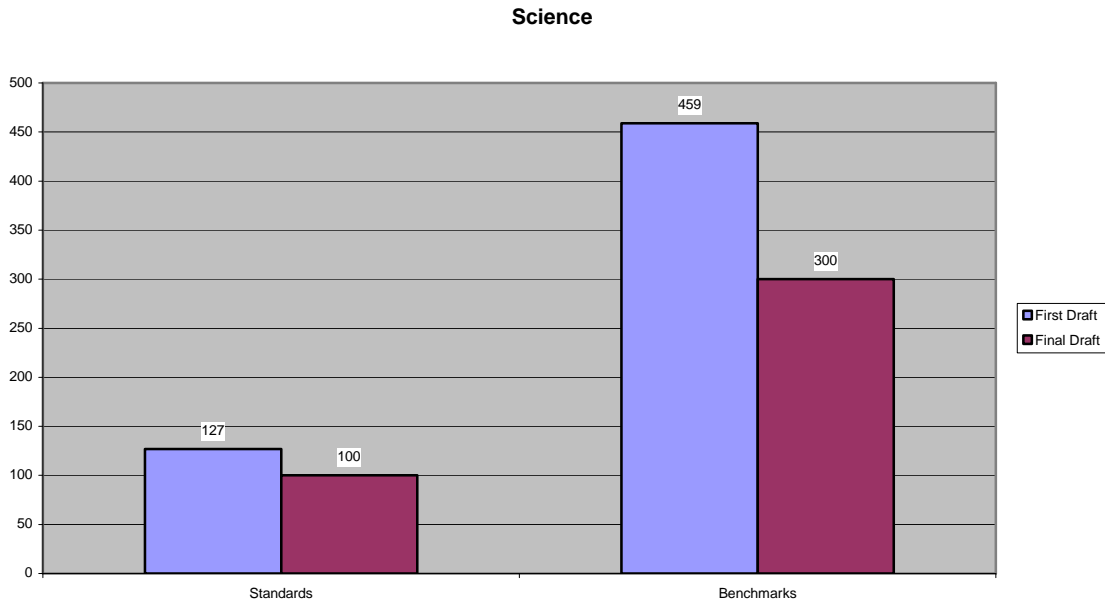
This was the most common criticism of the draft standards and was not unexpected. The instructions given to the committee at the beginning of the process was to err on the side of too many standards and benchmarks so committee members could use the public input process to determine priorities.

The final draft standards contain considerably fewer standards and benchmarks:

First draft social studies standards	233
Final draft social studies standards	211 (10% reduction)
First draft social studies benchmarks	848
Final draft social studies benchmarks	541 (36% reduction)



First draft science standards	127
Final draft science standards	100 (21% reduction)
First draft science benchmarks	459
Final draft science benchmarks	300 (35% reduction)



It is clear the committee followed their open process and listened to the public input about the volume of standards and benchmarks. Having fewer benchmarks will allow teachers to go into greater depth in science and social studies issues.

2. Teaching each subject of science and social studies at every grade level will be a huge burden and cost for schools and districts, and does not match how these subjects are currently being taught.

This concern was raised at every public hearing and in every analysis of the first draft standards, and concerns were raised especially at the middle school level. The committee made significant changes to address this by replacing the integrated approach with content specific standards at grades 6, 7, and 8.

In science, the focus is on Physical Science at grade 6, Life Science at grade 7 and Earth and Space Science at grade 8. In social studies, the focus is on Minnesota History at grade 6, U.S. History at grade 7 and geography at grade 8.

In addition, both the science and social studies committees passed resolutions suggesting that local districts be given the flexibility to place standards at appropriate levels within a grade band (K-2, 3-5, 6-8). For example, a district may place standards in any grade level K-2, provided that all standards are met by the end of grade 2.

On a related issue, Commissioner Yecke wrote a letter to House and Senate education leaders on October 29, 2003 asking them to consider a change in the course credit requirements for graduation that will allow local districts more flexibility in the area of social studies. The current law requires at least one credit of U. S. History, one credit of Geography, .5 credits of Government and Citizenship, .5 credits of World History and .5 credits of Economics. The Commissioner's proposed language would change this requirement to "three and one half credits in social studies, encompassing at least U. S. History, Geography, Government and Citizenship, World History and Economics."

3. The standards are not developmentally appropriate.

Many people were very concerned about the rigor of the standards, especially in the early grades. This criticism was voiced at every public hearing with many people citing the following social studies benchmarks:

- First graders knowing "how migration and colonization influenced American history."
- Third graders "comparing and contrasting characteristics of ancient cultures such as Persia, Egypt, China, India with Greece."
- Fourth graders studying the "ideas of John Locke."

These benchmarks and many others like them have been eliminated from the final draft or moved to a higher grade level in response to public input. The committee relied upon the teacher experts in each discipline to determine the developmental appropriateness of each standard and benchmark.

Another major change made to account for developmental appropriateness was to move all of the economics standards and benchmarks in K-3 up one grade level (kindergarten standards to first grade, first grade standards to second, etc.).

4. The standards are simply lists of facts for memorization and do not promote higher order or critical thinking skills.

Because of the overwhelming number of benchmarks in the first draft, many teachers understandably viewed it as a list of facts to memorize. With a high volume of standards in each subject, teachers would not have time to develop critical thinking skills with their students. By substantially reducing the number of standards and benchmarks, the committee made the final draft more manageable, allowing teachers the time in the classroom to work on higher level thinking skills with the content provided.

The committee also made significant changes to the expectations in the standards and benchmarks, adding higher order thinking skills such as analyze, explain, examine, evaluate, and compare and contrast.

The most significant addition to the final draft standards in social studies was a new strand on Essential Skills that has been added throughout the document. Since social studies is a content rich subject area, the Essential Skills standards will be useful for

teachers and students as they apply what they have learned using inquiry and historical research skills.

5. The proposed standards are not politically balanced.

Many people voiced concerns over the political imbalance of the draft standards. The perceived imbalance was a result of the committee providing lists of items to go with many of the benchmarks. Invariably, if a list is printed in the context of a standard or benchmark, the names or items submitted (or omitted) from that list are open for political scrutiny. The committee dealt with this criticism in two ways.

First, they created an “examples” column to compliment the benchmarks and used this column for examples that are not considered foundational. The examples will serve as a guide to teachers and will not have the force or weight of rules or law. If teachers wish to use different examples to teach a given benchmark, they are encouraged to do so.

Second, the committee rewrote many of the more political standards and added names and contributions from both political parties to give the final draft more balance. One benchmark cited at many public hearings dealt with President Ronald Reagan:

“Students will know the political and economic policies that led to the collapse of communism and the end of the Cold War, including the role of Ronald Reagan.”

That benchmark has been changed to:

“Students will know and describe the political and economic policies that led to the collapse of communism and the end of the Cold War, from the Truman Doctrine to the administration of Ronald Reagan.”

To accompany this rewritten benchmark, the committee provided the following examples:

Nixon and Khrushchev debates, Cuban missile crisis, Nixon’s trip to China, Carter/Sadat/Begin peace talks, Star Wars initiative, aid to Polish solidarity and Afghan anti-communist movements, and Reagan’s “Tear Down This Wall” speech in Berlin.

Another politically charged benchmark that drew frequent criticism dealt with the Vietnam War:

“Students will know and understand the role of America’s military and veterans in defending freedom during the Cold War, including the wars in Korea and Vietnam...”

This benchmark has been changed to:

“Students will be able to explain key events and revolutionary movements of the Cold War period and analyze their significance, including the Berlin Wall, the Berlin airlift, Korean War, Cuban Missile Crisis, Sputnik, and the Vietnam War.”

While political imbalance is ultimately in the eye of the beholder, the committee gave much more flexibility to schools and teachers through use of the examples column.

6. The standards do not address the history and contributions of Native Americans.

The committee greatly enhanced the Native American content in the standards with the help of a consultant from the Minnesota Historical Society. The final draft standards now tell the complete story of the Native American experience from the Mayans and the Aztecs all the way to the present. Many new standards have been added including:

“Students will understand and explain important cultural aspects of major North American Indian nations, including Mayans, Aztecs, Plains Indian Nations, Southwest Indian tribes, the Iroquois Confederacy, Dakota and Ojibwe; including their spiritual, intellectual, and scientific traditions.”

“Students will describe the cultural, economic and political interactions between Europeans and American Indian Nations that led to conflict, cooperation, and compromise, including treaties, political alliances, the impact and exchange of resources.”

“Students will examine the reaffirmation of American Indian sovereignty and the revitalization of language and cultural traditions.”

7. The standards are “Euro-centric.”

Many standards and benchmarks have been added to reflect non-Western world history throughout time. The committee benefited from the expertise of consultants from the University of Minnesota and the Minnesota Humanities Council as they added content in world history, including the following benchmarks:

“Students will locate various African civilizations of the era and compare and contrast the cultures of these various civilizations in terms of the cultural universals of economic, political, social, religious, philosophical, and technological characteristics.” (Examples: Kush, Maroe, use of iron, ocean going trade)

“Students will be able to locate in time and place East Asian civilizations of this era, and will describe, compare and contrast East Asian civilizations in terms of the cultural universals of economic, political, social, religious, philosophical, and technological characteristics.” (Examples: Ming dynasty, Zheng Ho, Tokugawa, Ieyasu, Yi dynasty, Ayuthia, Le dynasty, Mughal dynasty, Taj Mahal)

8. Important environmental concepts are not addressed in the science standards.

Language was added in grade 4 and clarified in grades 7, 8, and 9-12 in a variety of places.

Grade 4 Standard

“The student will investigate the impact humans have on the environment.”

Grade 4 Benchmark

“The student will identify and investigate environmental issues and potential solutions.