

# Definitions of Science in State Standards

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## Summary

**The definition of science proposed in the Minority Report is fully consistent with definitions used by all other states in the U.S. By contrast, the definition of science currently used in the Kansas standards and defended by the Majority is idiosyncratic and out of step with current educational practice.**

Reviewers Dennison and Miller claim that the Minority Report proposes a radical re-definition of science. Yet a comprehensive survey of state science standards (attached below) shows that all other states in the union that define science in their standards define it in a way similar to the Minority.

Dennison and Miller, along with reviewers Heppert and Theobald, also claim that the revised definition would open the door to supernatural explanations in science. This is simply false: No one is proposing that supernatural explanations should be included in science.

The definition of science in the current Kansas science standards is unlike any other in the U.S. By defining science first and foremost as "seeking natural explanations," the current standards subtly shift the emphasis in science education from the investigative process to the end result. This shift is out of step with modern science education, which gives priority to the activity of formulating and testing hypotheses. The Minority's definition is consistent with science as an open-ended inquiry that follows the evidence wherever it leads. The Majority's definition, by contrast, shortcircuits this process of inquiry and encourages premature answers to scientific questions -- the sort of "just-so stories" criticized by scientists such as Stephen Jay Gould.

The only other state in the U.S. that explicitly limits science to naturalistic explanations is Massachusetts. In the Massachusetts science standards, however, this limitation comes at the end of a detailed description of the scientific enterprise that begins by defining science more generally as "attempts to give good accounts of the patterns in nature." Only Kansas currently defines science primarily as "seeking natural explanations." As the comprehensive survey attached below shows, the Minority's

proposed revision would bring the Kansas science standards back into the mainstream of the U.S. science education community.

## A Comprehensive Survey of State Science Standards

Of the fifty states, nine include no definition of science or explicit description of scientific inquiry in standards accessible through the Internet. The standards of forty states include a definition of science or explicit description of scientific inquiry that is consistent with the one proposed in the Minority Report. **Only Kansas defines science as "seeking natural explanations."**

Here is a sampler of science definitions used by other states:

**Arizona:** "Science is a process of gathering and evaluating information, looking for patterns, and then devising and testing possible explanations."

**Arkansas:** "Science is a way of knowing that is characterized by empirical criteria, logical argument, and skeptical review."

**Connecticut:** "Scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena."

**Idaho:** "Science is a human endeavor that seeks to understand the universe by observation, experimentation, and rational interpretation of observations."

**Louisiana:** "Science is a way of thinking and a system of knowledge that uses reason, observation, experimentation, and imagination."

**Montana:** "Science is an inquiry process used to investigate natural phenomena, resulting in the formation of theories verified by direct observations."

**Nevada:** "Scientific inquiry is the process by which humans systematically examine the natural world."

**New Hampshire:** "Science is, above all, a problem-solving activity that seeks answers to questions by collecting and analyzing data in an attempt to offer a rational explanation of naturally-occurring events."

**Ohio:** "Science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena."

**South Dakota:** "Science is a process of gathering and evaluating information, looking for patterns, and then devising and testing possible explanations."

**Utah:** "Science is a way of knowing, a process for gaining knowledge and understanding of the natural world."

### DEFINITIONS OF SCIENCE IN STATE STANDARDS

| No definition or explicit description found on the Internet. | Science investigates the natural world through the use of observation, experimentation, and logical argument. | Science seeks natural explanations through the use of observation, experimentation, and logical argument. |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Alabama                                                      | Alaska                                                                                                        | Kansas                                                                                                    |
| Florida                                                      | Arizona                                                                                                       |                                                                                                           |
| Georgia                                                      | Arkansas                                                                                                      |                                                                                                           |
| Indiana                                                      | California                                                                                                    |                                                                                                           |
| Iowa                                                         | Colorado                                                                                                      |                                                                                                           |
| Missouri                                                     | Connecticut                                                                                                   |                                                                                                           |
| South Carolina                                               | Delaware                                                                                                      |                                                                                                           |
| Vermont                                                      | Hawaii                                                                                                        |                                                                                                           |
| Wyoming                                                      | Idaho                                                                                                         |                                                                                                           |
|                                                              | Illinois                                                                                                      |                                                                                                           |
|                                                              | Kentucky                                                                                                      |                                                                                                           |
|                                                              | Louisiana                                                                                                     |                                                                                                           |
|                                                              | Maine                                                                                                         |                                                                                                           |
|                                                              | Maryland                                                                                                      |                                                                                                           |
|                                                              | Massachusetts                                                                                                 |                                                                                                           |
|                                                              | Michigan                                                                                                      |                                                                                                           |
|                                                              | Minnesota                                                                                                     |                                                                                                           |
|                                                              | Mississippi                                                                                                   |                                                                                                           |
|                                                              | Montana                                                                                                       |                                                                                                           |
|                                                              | Nebraska                                                                                                      |                                                                                                           |
|                                                              | Nevada                                                                                                        |                                                                                                           |
|                                                              | New Hampshire                                                                                                 |                                                                                                           |
|                                                              | New Jersey                                                                                                    |                                                                                                           |
|                                                              | New Mexico                                                                                                    |                                                                                                           |
|                                                              | New York                                                                                                      |                                                                                                           |
|                                                              | North Carolina                                                                                                |                                                                                                           |
|                                                              | North Dakota                                                                                                  |                                                                                                           |
|                                                              | Ohio                                                                                                          |                                                                                                           |
|                                                              | Oklahoma                                                                                                      |                                                                                                           |
|                                                              | Oregon                                                                                                        |                                                                                                           |
|                                                              | Pennsylvania                                                                                                  |                                                                                                           |
|                                                              | Rhode Island                                                                                                  |                                                                                                           |
|                                                              | South Dakota                                                                                                  |                                                                                                           |
|                                                              | Tennessee                                                                                                     |                                                                                                           |
|                                                              | Texas                                                                                                         |                                                                                                           |

|  |               |  |
|--|---------------|--|
|  | Utah          |  |
|  | Virginia      |  |
|  | Washington    |  |
|  | West Virginia |  |
|  | Wisconsin     |  |

## **Details by State, with URLs**

### **Alabama**

[http://www.alsde.edu/html/sections/section\\_detail.asp?section=54](http://www.alsde.edu/html/sections/section_detail.asp?section=54)

### **Alaska**

<http://www.educ.state.ak.us/tls/frameworks/mathsci/ms3cntn3.htm>

"The processes of science [include] observing, classifying, measuring, interpreting data, inferring, communicating, controlling variables, developing models and theories, hypothesizing, predicting and experimenting... Scientific inquiry often involves different ways of thinking, curiosity and the exploration of multiple paths."

### **Arizona**

<http://www.ade.state.az.us/standards/science/rationale.asp>

"Science is a process of gathering and evaluating information, looking for patterns, and then devising and testing possible explanations."

### **Arkansas**

<http://bob.nap.edu/readingroom/books/nses/2.html#perspectives>

"Science is a way of knowing that is characterized by empirical criteria, logical argument, and skeptical review... Scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work... The goal of science is to understand the natural world."  
(National Science Education Standards, 1995.)

### **California**

<http://www.cde.ca.gov/re/pn/fd/documents/sci-stnd.pdf>

"Science is an organized body of knowledge and a method of proceeding to an extension of this knowledge by hypothesis and experiment... Students will formulate explanations by using logic and evidence."

### **Colorado**

<http://www.cde.state.co.us/cdeassess/standards/pdf/science.pdf>

"Science presumes that the things and events in the universe occur in consistent patterns that are comprehensible through careful, systematic study. Scientists believe that through the use of the intellect, and with the aid of instruments that extend the senses, people can discover patterns in all nature. Science is a process for producing knowledge. Change in scientific knowledge is inevitable because new observations may challenge prevailing theories. In science, the testing and improving and occasional discarding of theories, whether new or old, go on all the time." (AAAS, *Science for All Americans*, 1990)

### **Connecticut**

<http://www.state.ct.us/sde/dtl/curriculum/currsci.htm>

"Scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena. Scientific inquiry progresses through a continuous process of questioning, data collection, analysis and interpretation. Scientific inquiry requires the sharing of findings and ideas for critical review by colleagues and other scientists."

### **Delaware**

[http://www.doe.state.de.us/Standards/Science/science\\_toc.html](http://www.doe.state.de.us/Standards/Science/science_toc.html)

"Scientists' curiosity about the natural world leads them to ask questions about how things work... Scientific investigations in many cases follow no fixed set of steps. However, there are certain features of a valid scientific investigation that are essential and result in evidence that can be used to construct explanations... The close examination of evidence is necessary to construct logical scientific explanations and present arguments which defend proposed explanations."

### **Florida**

<http://www.firn.edu/doe/curric/prek12/pdf/science9.pdf>

## **Georgia**

<http://www.georgiastandards.org/science.asp>

## **Hawaii**

<http://www.pgd.hawaii.edu/kaams/standards/nstatable.htm#G2>

"Scientists formulate and test their explanations of nature using observation, experiments, and theoretical and mathematical models. Although all scientific ideas are tentative and subject to change and improvement in principle, for most major ideas in science, there is much experimental and observational confirmation. Those ideas are not likely to change greatly in the future. Scientists do and have changed their ideas about nature when they encounter new experimental evidence that does not match their existing explanations."

## **Idaho**

<http://www2.state.id.us/adm/adminrules/rules/idapa08/0203.pdf>

"Science is a human endeavor that seeks to understand the universe by observation, experimentation, and rational interpretation of observations. At its core, science is a method of asking questions, a method that may be extended to problem solving in many areas of life. An observation leads to a hypothesis. The hypothesis suggests experiments that might be done to further understand the phenomena. These observations and hypotheses are published in scientific literature whereupon they may be replicated, extended, or disproved by others. Hypotheses that prove capable of explaining observations and making predictions about additional phenomena are retained while those that fail this test are discarded. Only those hypotheses that have proven to be successful over considerable periods of time are referred to as 'theories,' and even these theories may be supplanted should they prove incapable of explaining new observations."

## **Illinois**

<http://www.isbe.net/ils/science/standards.htm>

"Science is a creative endeavor of the human mind. It offers a special perspective of the natural world in terms of understanding and interaction."

**Indiana**

[http://ideanet.doe.state.in.us/standards/standards2000\\_science.html](http://ideanet.doe.state.in.us/standards/standards2000_science.html)

**Iowa**

<http://www.state.ia.us/educate/index.html>

**Kansas**

<http://www.ksde.org/outcomes/sciencestdsintro.pdf>

"Science is a human activity of systematically seeking natural explanations for what we observe in the world around us. Throughout history people from many cultures have used the methods of science to contribute to scientific knowledge and technological innovations, making science a worldwide enterprise. Scientists test explanations against the natural world, logically integrating observations and tested hypotheses with accepted explanations to gradually build more reliable and accurate understandings of nature. Scientific explanations must be testable and repeatable, and findings must be confirmed through additional observation and experimentation. As it is practiced in the late 20th and early 21st century, science is restricted to explaining only the natural world, using only natural cause. This is because science currently has no tools to test explanations using non-natural (such as supernatural) causes."

**Kentucky**

<http://www.education.ky.gov/NR/rdonlyres/embzghscyi2tfsxvfhcwo424g2nhaew3x2tjpos3iy3gt32dathwbvxqgn7l3exuyxn57w5ckyvgbybnern6gzbqef3f/sciencecc30.pdf>

"Scientific knowledge comes from empirical standards, logical arguments, and skepticism, and is subject to change as new evidence becomes available."



**Louisiana**

<http://www.doe.state.la.us/lde/uploads/2911.pdf>

"Science is a way of thinking and a system of knowledge that uses reason, observation, experimentation, and imagination. The goal of science is to describe, explain, and predict natural phenomena and processes. Science shares some characteristics with other forms of scholarly inquiry, but it is unique in several important ways. Science attempts to meet the criteria of testability, objectivity, and consistency. Scientific information is continuously open to review and modification; science is not a static body of knowledge."

**Maine**

<http://www.state.me.us/education/lres/st.htm>

"Science includes processes and a body of knowledge. Processes are the ways scientists investigate and communicate about the natural world. The body of knowledge includes concepts, principles, facts, laws, and theories."

**Maryland**

<http://www.aacps.org/aacps/boe/INSTR/CURR/scien/mscs.html>

"Science is a body of knowledge developed through the process of investigating that is combined with thoughtful reflections guided by critical thinking skills."

**Massachusetts**

<http://www.doe.mass.edu/frameworks/scitech/2001/0501.pdf>

"Science may be described as attempts to give good accounts of the patterns in nature. The result of scientific investigation is an understanding of natural processes. Scientific explanations are always subject to change in the face of new evidence. Ideas with the most durable explanatory power become established theories or are codified as laws of nature. Overall, the key criterion of science is that it provides a clear, rational, and succinct account of a pattern in nature. This account must be based on data gathering and analysis and other evidence obtained through direct observations or experiments, reflect inferences that are broadly shared and communicated, and be accompanied by a model that offers a naturalistic explanation expressed in conceptual, mathematical, and/or mechanistic terms."

**Michigan**

[http://www.michigan.gov/documents/Updated\\_Science\\_Benchmarks\\_27030\\_7.pdf](http://www.michigan.gov/documents/Updated_Science_Benchmarks_27030_7.pdf)

"Science is a way of making sense of the natural world. Science seeks to describe its complexity, to explain its systems and events, and to find patterns that allow for predictions... Scientific questions can be answered by gathering and analyzing evidence about the world...The process of scientific investigations [includes] test, fair test, hypothesis, theory, evidence, observations, measurements, data, conclusion."

**Minnesota**

<http://education.state.mn.us/content/072583.pdf>

"Scientific knowledge must meet certain criteria including that it: be consistent with experimental, observational and inferential evidence about nature; follow rules of logic and reporting both methods and procedures; and, be falsifiable and open to criticism."

**Mississippi**

[http://www.mde.k12.ms.us/acad/id/curriculum/Science/science\\_curr.htm](http://www.mde.k12.ms.us/acad/id/curriculum/Science/science_curr.htm)

"Scientific inquiry involves making observations; posing questions; examining sources of information for facts; planning investigations; reviewing experimental evidence gathered by the student; using tools; proposing answers, explanations and predictions; and communicating results."

**Missouri**

<http://dese.mo.gov/standards/science.html>

**Montana**

<http://www.opi.state.mt.us/pdf/Standards/ContStds-Science.pdf>

"Science is an inquiry process used to investigate natural phenomena, resulting in the formation of theories verified by direct observations. These theories are challengeable and changeable. Data used to support or contradict them must be reproducible."

Although science as a body of knowledge is ever changing, the processes of science are constant. In scientific inquiry, a problem is identified, pertinent data is gathered, hypothesis is formulated, experiments are performed, the results are interpreted, and conclusions are drawn."

## **Nebraska**

<http://www.nde.state.ne.us/ndestandards/sciencedrft.htm>

"By the end of twelfth grade, students will develop an understanding of science as a human endeavor... [and] recognize science as one way of answering questions and explaining the natural world... Students will develop an understanding of the nature of scientific knowledge: demonstrate the use of empirical standards, logical arguments, and skepticism in science; create scientific explanations consistent with experimental and observational evidence; make accurate predictions; strive to be logical; respect the rules of evidence; accept criticism; report methods and procedures; and make knowledge public; [and] understand that all scientific knowledge is, in principle, subject to change as new evidence becomes available."

## **Nevada**

<http://www.doe.nv.gov/sca/standards/standardsfiles/science/DraftDec10.pdf>

"Scientific inquiry is the process by which humans systematically examine the natural world. Scientific inquiry is a human endeavor and involves observation, reasoning, insight, energy, skill and creativity. Scientific inquiry is used to formulate and test explanations of nature through observation, experiments and theoretical or mathematical models. Scientific explanations and evidence are constantly reviewed and examined by others. Questioning, response to criticism and open communication are integral to the process of science."

## **New Hampshire**

<http://www.ed.state.nh.us/education/doe/organization/curriculum/Assessment/Science.htm>

"Science is, above all, a problem-solving activity that seeks answers to questions by collecting and analyzing data in an attempt to offer a rational explanation of naturally-occurring events... Students will perceive that scientific knowledge is the result of the cumulative efforts of people, past and present, who have attempted to explain the

world through an objective, peer-tested, rational approach to understanding natural phenomena and occurrences... Inquiry in science follows no single pathway. It involves imagination, inventiveness, experimenting, and the use of logic and evidence to support results."

### **New Jersey**

[http://www.state.nj.us/njded/cccs/s5\\_science.pdf](http://www.state.nj.us/njded/cccs/s5_science.pdf)

"Science is not merely a collection of facts and theories but a process, a way of thinking about and investigating the world in which we live... [Science students will] raise question about the world around them and be willing to seek answers through making careful observations and experimentation."

### **New Mexico**

[http://www.nmlites.org/standards/science/glossary\\_5.htm](http://www.nmlites.org/standards/science/glossary_5.htm)

"Science is both a body of knowledge and a set of processes for advancing that knowledge. More specifically, science is mankind's interconnected, internally consistent, growing body of knowledge about natural and man-made objects and phenomena of the past, present, and future; a body of knowledge that is based on repeatable experimentation with, or observation of, these natural and man-made objects and phenomena, that is organized and extended using logic and mathematics, and that is validated by the testing of hypotheses."

### **New York**

<http://www.emsc.nysed.gov/ciai/mst/pub/intersci.pdf>

"The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process... Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity... The observations made while testing explanations, when analyzed using conventional and invented methods, provide new insights into phenomena."

**North Carolina**

<http://www.ncpublicschools.org/curriculum/science/standard/downloads/science.pdf>

There "are different ways to define science. A lay person might see it as a body of information, a scientist might define it as a set of procedures by which hypotheses are tested, and a philosopher might regard it as a way to question the truth of what we know. Each of these views is a valid, but only partial, definition of science... Science is a way of knowing about the world. In science, explanations are limited to those that can be inferred from confirmable data -- the results obtained through observations and experiments that can be substantiated by other scientists (NAS). When observations of a phenomenon have been confirmed or can be repeated, they are regarded as a fact. Any scientific confirmation is, however, tentative, because it is always possible that the results occurred by chance."

**North Dakota**

<http://www.dpi.state.nd.us/standard/content/science.pdf>

"Science: (1) a process which attempts to understand the order in nature and which uses that knowledge to make predictions about what might happen in nature; (2) knowledge resulting from scientific investigations... [Students will understand] characteristics of scientific knowledge (e.g., consistent and repeatable data, best explanation for natural phenomena, shared methods and results, open to question and reexamination, probability greater than chance, logical, often allows predictions)."

**Ohio**

[http://www.ode.state.oh.us/academic\\_content\\_standards/ScienceContentStd/PDF/SCIENCE.pdf](http://www.ode.state.oh.us/academic_content_standards/ScienceContentStd/PDF/SCIENCE.pdf)

"Science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena."

**Oklahoma**

<http://www.sde.state.ok.us/acrob/pass/science.pdf>

Scientific inquiry "can be defined as the skills necessary to carry out the process of scientific or systematic thinking. In order for inquiry to occur, students must have the opportunity to ask a question ...; use systematic observations, make accurate measurements, and identify and control variables; use technology to gather data and analyze results of investigations; review data, summarize data, and form logical conclusions; [and] formulate and evaluate explanations proposed by examining and comparing evidence, pointing out statements that go beyond evidence, and suggesting alternative explanations."

**Oregon**

<http://www.ode.state.or.us/teachlearn/specialty/pre-post/sci-tlss200405.pdf>

"Science is a human endeavor practiced by individuals from many different cultures. Understand that scientific knowledge is subject to change based on new findings and result of scientific observation and experimentation. Understand that scientific knowledge distinguishes itself through the use of empirical standards, logical arguments, and skepticism."

**Pennsylvania**

<http://www.pde.state.pa.us/k12/lib/k12/scitech.pdf>

Science is "the search for understanding the natural world and facts, principles, theories and laws that have been verified by the scientific community and are used to explain and predict natural phenomena and events."

**Rhode Island**

<http://www.ridoe.net/standards/frameworks/science/philosophy.htm>

"Science is a particular way of learning about, looking at, and knowing the world. Science includes: asking questions about how the world works; collecting and analyzing relevant data; formulating ideas which draw upon the work of others, both past and present; testing these ideas through prediction and controlled experiments; communicating the results of one's labor to colleagues around the world for their

critique and further refinement; developing a frame of reference and general disposition toward investigations of the natural world which can be thought of as "habits of mind and affect;" [and] examining the implications of scientific discoveries on social, economic, and political systems. Explanatory frameworks for the natural world that prove fruitful to practicing scientists are accorded the status of theories. Theories are considered temporary and are therefore continually retested and revised (for example, theories of an earth-centered versus a sun-centered universe). Thus, science is a never ending quest to explain the natural world."

### **South Carolina**

[http://www.myschools.com/offices/cso/standards/science/course\\_standards.cfm](http://www.myschools.com/offices/cso/standards/science/course_standards.cfm)

### **South Dakota**

<http://www.state.sd.us/deca/OCTA/contentstandards/science/standards/index.htm#vision>

"Science is a process of gathering and evaluating information, looking for patterns, and then devising and testing possible explanations."

### **Tennessee**

<http://www.state.tn.us/education/ci/cistandards2001/sci/ciscistandardsguide.htm>

"Inquiry is the driving force behind scientific discovery... [It] is the process scientists use to build an understanding of the natural world based on evidence. Students can learn about the world using inquiry. Although learners rarely discover knowledge that is new to human kind, current research indicates that when engaged in inquiry, learners build knowledge new to themselves. Learner inquiry is a multifaceted activity that involves making observations; posing questions; examining multiple sources of information to see what is already known; planning investigations; reviewing what is already known in light of the learner's experimental evidence; using tools to gather, analyze and interpret data; proposing answers, explanations, and predictions; and communicating the results. Inquiry requires identifications of assumptions, use of critical and logical thinking, and consideration of alternative explanations."

**Texas:**

<http://www.tea.state.tx.us/rules/tac/chapter112/ch112c.pdf>

"Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and also should know that science may not answer all questions."

**Utah**

[http://www.usoe.k12.ut.us/curr/science/core/7THGRD/html/7\\_8\\_ESSCORE\\_2003.HTM](http://www.usoe.k12.ut.us/curr/science/core/7THGRD/html/7_8_ESSCORE_2003.HTM)

"Science is a way of knowing, a process for gaining knowledge and understanding of the natural world. The Science Core Curriculum places emphasis on understanding and using skills. Students should be active learners. It is not enough for students to read about science; they must do science. They should observe, inquire, question, formulate and test hypotheses, analyze data, report, and evaluate findings."

**Vermont**

<http://www.state.vt.us/educ/new/pdfdoc/pubs/framework.pdf>

**Virginia**

<http://www.pen.k12.va.us/go/Sols/science.html>

"The purposes of scientific investigation and discovery are to satisfy humankind's quest for knowledge and understanding and to preserve and enhance the quality of the human experience. Therefore, as a result of science instruction, students will be able to ... develop and use an experimental design in scientific inquiry, [and] develop scientific dispositions and habits of mind including: curiosity, demand for verification, respect for logic and rational thinking, consideration of premises and consequences, respect for historical contributions, attention to accuracy and precision, [and]patience and persistence."



**Washington**

<http://www.k12.wa.us/curriculumInstruct/science/pubdocs/ScienceEALR-GLE.pdf>

"Science [is] the systematized knowledge of the natural world derived from observation, study, and investigation; also the activity of specialists to add to the body of this knowledge."

**West Virginia**

[http://wvde.state.wv.us/policies/p2520.3\\_ne.pdf](http://wvde.state.wv.us/policies/p2520.3_ne.pdf)

"Science is a process of discovery. Students will engage in active inquiry through investigations,... These investigations explore the natural world, require critical thinking and develop process skills."

**Wisconsin**

<http://www.dpi.state.wi.us/standards/scistanb.html>

"Scientific knowledge is developed from the activities of scientists and others who work to find the best possible explanations of the natural world. Researchers and those who are involved in science follow a generally accepted set of rules to produce scientific knowledge that others can confirm with experimental evidence. This knowledge is public, replicable, and undergoing revision and refinement based on new experiments and data... [Scientific inquiry] should include questioning, forming hypotheses, collecting and analyzing data, reaching conclusions and evaluating results, and communicating procedures and findings to others."

**Wyoming**

<http://www.k12.wy.us/eqa/nca/pubs/standards/science.pdf>