

Science

A local report of the achievement of Seward Public School Students on the Nebraska State Science Standards for the 2005-2006 school year.

Overview **Fall 2006**

<p>Standards The science standards developed by the Nebraska Department of Education for the "backbone" of our science curriculum.</p> <p>There are ** standards in grades K-12 and while all are taught, ** are reported to the state.</p>	<p>Alignment Teachers have met to align the standards with our curriculum. We found that most standards were already included in our curriculum.</p> <p>Adjustments in curriculum have been made to ensure adequate coverage of all standards.</p>	<p>Materials Once the curriculum was aligned with the state standards, teachers conducted an extensive review of teaching materials. The materials selected best aligned with our curriculum and provide students with the best opportunity for success.</p>	<p>Curriculum Changes Changes were made in the curriculum to reflect the updated alignment. Students in grades 5-8 receive integrated instruction each year covering all disciplines in science. At the high school Biology will be taught in 9th grade and Physical Science in 10th grade.</p>	<p>Assessments Science standards are assessed in most grades and reported to the state in grades 5, 8, & 11. The assessments used in the classrooms have been reviewed for reliability and validity and are aligned specifically with the curriculum.</p>	<p>In the Future We will continue to review the new adjustments to our curriculum and evaluate their effectiveness and that of the assessments.</p>
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% of Students	Beginning	Progressing	Proficient	Advanced	Met the Standard
5th Grade Standards	0.0%	8.0%	42.5%	49.5%	92.0%
8th Grade Standards	0.0%	2.7%	20.7%	76.6%	97.3%
12th Grade Standards	0.0%	5.5%	36.3%	58.2%	94.5%

5th Grade

By the end of the 5th grade, students will develop:	Beginning	Progressing	Proficient	Advanced	Met Standard
the ability to do scientific inquiry. (5.2.1)	0%	15%	53%	32%	85%
an understanding of motion and forces. (5.3.2)	0%	8%	61%	31%	92%
an understanding of the structure and function in living systems. (5.4.1)	0%	1%	18%	81%	99%
an understanding of the structure of the earth. (5.5.1)	0%	8%	38%	54%	92%

8th Grade

By the end of the 8th grade, students will develop:	Beginning	Progressing	Proficient	Advanced	Met Standard
the ability to do scientific inquiry. (8.2.1)	0%	0%	2%	98%	100%
an understanding of properties and changes of properties of matter. (8.3.1)	0%	4%	33%	62%	96%
an understanding of motion and forces. (8.3.2)	0%	3%	37%	60%	97%
an understanding of the forms of energy and how energy is transferred. (8.3.3)	0%	3%	14%	84%	97%
an understanding of the structure and function in living systems. (8.4.1)	0%	3%	20%	77%	97%
an understanding of reproduction and heredity. (8.4.2)	0%	4%	18%	77%	96%
an understanding of regulation and behavior. (8.4.3)	0%	1%	17%	82%	99%
an understanding of populations and ecosystems. (8.4.4)	0%	0%	22%	78%	100%
an understanding of diversity and adaptations of organisms. (8.4.5)	0%	2%	16%	82%	98%
an understanding of the structure of the earth. (8.5.1)	0%	6%	26%	69%	94%
an understanding of earth's history. (8.5.2)	0%	4%	18%	78%	96%
understanding of the earth in the solar system. (8.5.3)	0%	2%	25%	73%	98%



12th Grade

By the end of the 12th grade, students will develop:	Beginning	Progressing	Proficient	Advanced	Met Standard
the ability to do scientific inquiry. (12.2.1)					Data in '06-'07
an understanding of the structure of an atom. (12.3.1)	0%	29%	47%	24%	71%
an understanding of the structure and properties of matter. (12.3.2)	0%	10%	64%	26%	90%
an understanding of chemical reactions. (12.3.3)	0%	3%	46%	51%	97%
an understanding of motion and forces. (12.3.4)	0%	3%	33%	64%	97%
an understanding of the conservation of energy and increase in disorder. (12.3.5)	0%	1%	5%	93%	98%
an understanding of the interactions of energy and matter. (12.3.6)	0%	4%	39%	56%	95%
an understanding of the cell. (12.4.1)	0%	3%	13%	84%	97%
an understanding of the molecular basis of heredity. (12.4.2)	0%	6%	34%	59%	93%
an understanding of the theory of biological evolution. (12.4.3)					Data in '06-'07
an understanding of the interdependence of organisms. (12.4.4)	0%	0%	53%	47%	100%
an understanding of matter, energy, and organization in living systems. (12.4.5)	0%	6%	16%	78%	94%
an understanding of the behavior of organisms. (12.4.6)	0%	0%	47%	53%	100%
an understanding of energy in the earth system. (12.5.1)					Data in '06-'07
an understanding of geochemical cycles. (12.5.2)					Data in '06-'07
an understanding of the origin of the earth system. (12.5.3)	0%	0%	31%	69%	100%
an understanding of the origin of the universe. (12.5.4)	0%	7%	40%	53%	93%