

Wyoming Curriculum Matrix Summary

Proficiency Assessments for Wyoming Students (PAWS)

PAWS is the assessment system used for the Wyoming statewide testing system. It was designed to be instructionally supportive of a variety of student growth and performance information.

English Language Arts

The reading and writing PAWS is administered to all students in grades 3-8 and 11.

Testing Priority Designation

Information necessary to make priority designations relative to PAWS grades 3-8 and 11 in reading and writing was obtained from the Wyoming Department of Education (WDOE) website. Priority designations for reading and writing were determined by using two separate processes as described below.

Reading. The *Wyoming Department of Education Assessment Descriptions and Scoring Rubrics - Reading* revealed at each grade level which reading sub-benchmarks were assessed. This information was tallied to determine the frequency of sub-benchmarks assessed. These numbers were then averaged for each grade level. Using this data, standard deviations (STDs) were calculated and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Reading sub-benchmarks that were not assessed were assigned a Low (L) priority designation.

Writing. The *Wyoming Department of Education Assessment Descriptions – Writing – Grades 3-8 and 11* revealed which writing sub-benchmarks were assessed. This information was tallied to determine the frequency of sub-benchmarks assessed. These numbers were then averaged for each grade level. Using this data, STDs were calculated and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Writing sub-benchmarks that were not assessed were assigned a Low (L) priority designation.

The PAWS grades 3-8 and 11 reading and writing priority designation results can be found in Tables 1 and 2.

Table 1. Reading Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	3.42	1.38	2.04	0	1-2	>2
4	3.16	1.35	1.81	0	1-2	>2
5	3.86	1.75	2.11	0	1-2	>2
6	3.36	1.84	1.52	0	1-2	>2
7	3.57	0.68	2.89	0	1-3	>3
8	3.80	1.58	2.22	0	1-2	>2
11	4.22	2.75	1.47	0	1-2	>2

Table 2. Writing Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	2.00	0.77	1.23	0	1	>1
4	1.67	0.45	1.22	0	1	>1
5	1.36	0.46	0.90	0	1	>1
6	1.63	0.46	1.17	0	1	>1
7	1.75	0.41	1.34	0	1	>1
8	1.70	0.44	1.26	0	1	>1
11	1.67	0.45	1.22	0	1	>1

Reading and writing summary data are presented in Table 3.

Table 3. Reading and Writing Assessment Data Summary

Reading and Writing			PAWS			NESS*		
Grade	Content Standards	Sub-Benchmarks	H	M	L	H 1-19	M 20-38	L 39-50
3	3	34	16	5	13	21	10	3
4	3	37	19	9	9	24	8	5
5	3	31	13	12	6	19	8	4
6	3	29	12	8	9	21	5	3
7	3	27	13	2	12	17	8	2
8	3	32	15	5	12	24	7	1
11	3	31	14	4	13	23	6	2
Totals	21	221	102	45	74	149	52	20

Mathematics

The Mathematics PAWS is administered to all students in grades 3-8 and 11. The Wyoming framework for assessing mathematics is based on problem solving.

Testing Priority Designation

Information necessary to make priority designations relative to the PAWS grades 3-8 and 11 mathematics assessments was obtained from the WDOE website. The WDOE has identified sets of mathematics content skills contained in the Wyoming Content Standards and Benchmarks. The *Wyoming Assessment Descriptions – Math – Grades 3-8 and 11* align the mathematics skills to the benchmarks. PAWS did not assess a benchmark that was not aligned to a mathematics skill. The WDOE mathematics assessment blueprints, revealing the number of score points per content standard at each grade level, were averaged. STDs were calculated for each grade level assessed and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Benchmarks that were not assessed were assigned a Low (L) priority designation.

The PAWS 3-8 and 11 mathematics priority designation results can be found in Table 4.

Table 4. Mathematics Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	12.00	1.63	10.31	0	1-10	>10
4	13.00	1.63	11.37	0	1-11	>11
5	13.00	1.53	11.47	0	1-11	>11
6	13.00	3.06	9.94	0	1-10	>10
7	13.20	3.58	9.62	0	1-10	>10
8	14.00	1.17	9.53	0	1-10	>10
11	14.00	4.53	10.07	0	1-10	>10

Mathematics summary data are presented in Table 5.

Table 5. Mathematics Assessment Data Summary

Mathematics			PAWS			NESS*		
Grade	Content Standards	Benchmarks	H	M	L	H 1-16	M 17-42	L 43-70
3	5	21	15	5	1	15	5	1
4	5	25	21	4	0	18	6	1
5	5	23	19	3	1	18	5	0
6	5	21	11	7	3	15	6	0
7	5	23	7	14	2	18	5	0
8	5	20	8	11	1	17	3	0
11	5	23	7	13	3	18	5	0
Totals	35	156	88	57	11	119	35	2

Science

Information necessary to make priority designations relative to PAWS grades 4, 8, and 11 science assessments was obtained from the WDOE website. The WDOE has provided science assessment blueprints revealing the number of assessment items per content standard. Further, the WDOE provided the *Alignment of Paws to Science Standards*. This document revealed which science benchmarks and skills are assessed. The science PAWS assesses *Science as Inquiry* and *Context for Science*. The *Science as Inquiry* assessment items are embedded within the *Context for Science* assessment items even though they are presented separately in the science curriculum matrices. Therefore, the data concerning the assignment of priority designations for each standard are presented in separate tables.

Testing Priority Designation

The PAWS grades 3-8 and 11 science priority designation results can be found in Tables 6 and 7.

Table 6. Science As Inquiry Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
4	3.33	1.83	1.50	0	1-2	>2
8	3.00	0.76	2.24	0	1-2	>2
11	2.33	0.87	1.50	0	1-2	>2

Table 7. Context for Science Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
4	16.67	0.82	15.85	0	1-16	>16
8	16.67	0.82	15.85	0	1-16	>16
11	16.67	0.82	15.85	0	1-16	>16

Science summary data are presented in Table 8.

Table 8. Science Assessment Data Summary

Science			PAWS			NESS*		
Grade	Content Standards	Benchmarks	H	M	L	H 1-32	M 33-50	L 51-85
4	3	16	6	7	3	12	3	1
8	3	21	10	7	4	15	1	5
11	3	21	9	7	5	17	2	2
Totals	9	58	25	21	12	44	6	8

Totals for Reading/Writing, Mathematics, and Science

Table 9 presents the total number of reading/writing sub-benchmarks, and mathematics and science benchmarks compared to the number of sub-benchmarks/benchmarks tested. Using these data, the percentage of sub-benchmarks/benchmarks was calculated for each discipline. Finally, the totals were combined for all three disciplines to reveal the total percentage of sub-benchmarks/benchmarks assessed by PAWS.

Table 9. Totals and Percentages for Reading/Writing, Mathematics, and Science

	# Benchmarks/Sub-Benchmarks	# Benchmarks/Sub-Benchmarks Tested	% Benchmarks/Sub-Benchmarks Tested
Reading/Writing	221	147	67
Mathematics	156	145	93
Science	58	45	80
TOTALS	435	337	78

References

Wyoming Department of Education

<http://www.k12.wy.us/>

Assessment

<http://www.k12.wy.us/SA/assessments.asp>

PAWS

<http://www.k12.wy.us/SA/Paws/index.asp>

Test Blueprints

<http://www.k12.wy.us/SA/Paws/Resources/Docs/blueprints.pdf>

Resources:

Reading - <http://www.k12.wy.us/SA/Paws/Resources/reading.asp>

Writing - <http://www.k12.wy.us/SA/Paws/Resources/writing.asp>

Math - <http://www.k12.wy.us/SA/Paws/Resources/math.asp>

Science - <http://www.k12.wy.us/SA/Paws/Resources/science.asp>

Curriculum

<http://www.k12.wy.us/SA/standards.asp>

***NESS (National Essential Skills Study)** in the preceding subject summary charts refers to the *International Center for Leadership in Education's* 2007-08 national survey, a forced-ranking by approximately 13,000 adults of the proficiencies deemed most important for high school graduates in each of English Language Arts, Math, and Science.

- English Language Arts proficiencies ranked 1-19 were assigned a High (H) rating; items ranked 20-38 were assigned a Medium (M) rating; and items ranked 39-50 were assigned a Low (L) rating.
- Math proficiencies ranked 1-16 were assigned a High (H) rating; items ranked 17-42 were assigned a Medium (M) rating; and items ranked 43-70 were assigned a Low (L) rating.
- Science proficiencies ranked 1-32 were assigned a High (H) rating; items marked 33-50 were assigned a Medium (M) rating; and items ranked 51-85 were assigned a Low (L) rating.

Where English Language Arts, Math, and Science proficiencies overlapped across indicators in other subjects (for example an English Language Arts proficiency within a Science indicator), the rating of H, M, or L was designated to the proficiency in the subject of focus. A complete description of the *National Essential Skills Study* is provided elsewhere in this resource kit.

