

Arizona Curriculum Matrix Summary

Arizona Assessment Program

Arizona’s Instrument to Measure Standards (AIMS) has two purposes. The Standards-Based Assessments are designed to measure student proficiency of the Arizona Academic Content Standards in Writing, Reading, Mathematics, and Science as required by state and federal law. The Norm-Referenced Assessments portion of the assessment are designed to measure student national percentile ranking in Reading, Language Arts, and Mathematics as required by state law.

English Language Arts

Arizona’s English Language Arts program emphasizes students’ need to communicate effectively in their schools and communities. The communication skills (reading, writing, listening, speaking, viewing, and presenting) form the core of Arizona’s English Language Arts curriculum. Listening and Speaking, and Viewing and Presenting performance objectives are not tested by AIMS. These performance objectives are assessed at the classroom level.

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Arizona State Department of Education Web Site. Test blueprints can be accessed at this site. Each blueprint reveals the level of representation given on the test to each tested concept. The percentage of test items per concept at each grade level was averaged. Standard deviations (STD) were calculated for each grade level and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Objectives not tested were assigned a Low (L) priority designation. The results can be found in Table 1 below.

Table 1. English Language Arts Priority Designation Data.

Grade Level	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	12.38	4.24	8.14	0	1-8	>8
4	16.50	7.74	8.76	0	1-9	>9
5	16.50	7.44	9.06	0	1-9	>9
6	16.50	7.44	9.06	0	1-9	>9
7	14.14	5.49	8.66	0	1-9	>9
8	14.14	6.86	7.28	0	1-7	>7
10	14.14	6.68	7.46	0	1-7	>7

English language arts summary data are presented in Table 2 below.

Table 2. English Language Arts AIMS Summary Data.

Grade Level	Strands	Concepts	Performance Objectives	AIMS			NESS*		
				H	M	L	H 1-19	M 20-38	L 39-50
3	8	27	117	90	10	17	90	23	4
4	8	25	113	88	8	17	80	28	5
5	8	25	114	95	3	16	82	27	5
6	8	25	118	99	3	16	89	25	4
7	8	25	121	102	5	14	88	29	4
8	8	25	122	98	10	14	90	29	3
10	8	25	114	78	16	20	86	22	6
Totals	56	177	819	650	55	114	605	183	31

Mathematics

The Arizona Mathematics Curriculum is organized into the following strands of mathematical content: Numbers and Operations; Data Analysis, Probability, and Discrete Mathematics; Patterns, Algebra, and Functions; Geometry and Measurement; and Structure and Logic. Each strand is organized into concepts and performance objectives.

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Arizona State Department of Education Web Site. Test blueprints can be accessed at this site. Each blueprint reveals the level of representation given on the test to each tested concept. The percentage of test items per concept at each grade level was averaged. Standard deviations (STD) were calculated for each grade level and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Objectives not tested were assigned a Low (L) priority designation. The results can be found in Table 3 below.

Table 3. Mathematics Priority Designation Data.

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	7.35	4.82	2.53	0	1-3	>3
4	6.60	4.32	2.28	0	1-2	>2
5	8.17	3.32	4.85	0	1-5	>5
6	4.46	1.49	2.97	0	1-3	>3
7	5.77	1.91	3.86	0	1-4	>4
8	5.92	2.24	3.68	0	1-3	>3
10	6.79	3.44	3.35	0	1-3	>3

Mathematics summary data are presented in Table 4 below.

Table 4. Mathematics AIMS Summary Data.

Grade Level	Strands	Concepts	Performance Objectives	AIMS			NESS*		
				H	M	L	H 1-16	M 17-42	L 43-70
3	5	17	47	37	10	0	28	16	3
4	5	17	52	46	6	0	34	17	1
5	5	17	44	38	6	0	31	13	0
6	5	17	56	46	10	0	36	20	0
7	5	17	58	53	5	0	34	23	1
8	5	17	61	58	3	0	30	27	4
9-10	5	17	99	84	15	0	44	41	14
Totals	35	119	417	362	55	0	237	157	23

Science

The Arizona Science Curriculum is organized into the following strands of science content: Scientific Inquiry; History and Nature of Science; Science in Personal and Social Perspectives; Life Science; Physical Science; and Earth and Space Science. Each strand is organized into concepts and performance objectives.

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Arizona State Department of Education Web Site. Test blueprints can be accessed at this site. Each blueprint reveals the level of representation given on the test to each tested concept. The percentage of test items per concept at each grade level grade level was averaged. Standard deviations (STD) were calculated for each grade level and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Objectives not tested were assigned a Low (L) priority designation. The results can be found in Table 5 below.

Table 5. Science Priority Designation Data.

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
4	7.09	3.38	3.71	0	1-4	>4
8	7.49	2.63	4.86	0	1-5	>5
10	7.09	2.57	4.52	0	1-5	>5

Science summary data are presented in Table 6 below.

Table 6. Science AIMS Summary Data.

Grade Level	Strands	Performance Objectives	AIMS			NESS*		
			H	M	L	H 1-32	M 33-50	L 51-85
4	6	52	43	9	0	36	13	3
8	6	56	39	17	0	44	6	6
10	6	154	47	17	90	86	22	46
Totals	18	262	129	43	90	166	41	55

Totals for AIMS Tested English Language Arts, Mathematics, and Science

Table 7 below presents the number of performance objectives compared to the number of performance objectives tested. Using this data, the percentage of performance objectives tested was calculated.

Table 7. Total Percentage for all AIMS Grade Levels in English Language Arts, Mathematics, and Science.

	Performance Objectives	Performance Objectives Tested	% Performance Objectives Tested
English LA	417	417	100
Mathematics	254	193	76
Science	262	172	66
TOTAL	933	782	84

References

Arizona State Office of Education

<http://www.ade.state.az.us/>

Arizona Standards and Assessment Division: Content Standards Section

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

Arizona Standards and Assessment Division: Assessment Section

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

Arizona 2008 Test Blueprints

<http://www.ade.state.az.us/standards/AIMS/TechnicalLegal/AIMSTechReport2008.pdf>

***NESS (National Essential Skills Study)** in the preceding subject summary charts refers to the *International Center for Leadership in Education's* 2007-2008 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.

