

Michigan Curriculum Matrix Summary

Introduction

The Curriculum Matrix data in this resource kit is provided as a guide to help educators in planning curriculum and instruction. All interpretations of state standards, Common Core State Standards, and state assessment program data that were needed to construct the correlations in this Matrix were conducted by content area specialists in each discipline and reviewed by research managers. Where and if necessary, interpretations of the learning statements used in the correlations were verified by third-party reviewers and/or officials of the state's department of education. Every effort has been made to ensure the accuracy of the crosswalk and summary data. However, some learning outcome statements are, by their nature, subject to interpretation and determination of intent by content area specialists. Educators should always exercise their own best judgment in determining how to apply the data.

Care was taken to ensure that all data used in the analyses was current at the time of publication, but all standards and assessment data remain subject to updates as states revise or update their state standards or assessment programs. The International Center welcomes your feedback, advice, and suggestions about the data provided. The Center also eagerly encourages users to help us keep the data current for all educators in their state by advising us of any such updates. Please address all comments to: International Center for Leadership in Education, 1587 Route 146, Rexford, NY 12148 or info@LeaderEd.com.

Michigan State Testing Program

The Michigan Educational Assessment Program (MEAP) assesses students in grades 3-8 based on the Michigan Curriculum Framework. Tested subjects are English language arts (writing tested only in grades 4 and 7), mathematics, science (tested only in grades 5 and 8), and social studies (tested only in grades 6 and 9). The Michigan Merit Exam (MME) assesses students in grade 11 (and eligible students in grade 12) based on the Michigan Curriculum Framework. The new MME consists of three major components: the ACT college entrance examination, the WorkKeys job skills assessments in reading and mathematics, and the Michigan assessments in mathematics, science, social studies, and persuasive writing.

English Language Arts

The Michigan English language arts program is a composite of the *Michigan English Language Arts Curriculum Framework Standards and Benchmarks* (1996), the *Career and Employability Skills Content Standards and Benchmarks* (2001), the *Michigan K-8 English Language Arts Grade Level Content Expectations* (2004), the *Michigan English Language Arts Grade Level Content Expectations* (2005), and the *Michigan English Language Arts High School Content Expectations* (HSCE, 2006). The Michigan state assessment program assesses in grades 2-7 using the *Michigan Educational Assessment Program* (MEAP), and in high school using the *Michigan Merit Examination* (MME).

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Michigan Department of Education website. Priority designations for the elementary and middle school grades were determined by using the number of test items per grade level content expectation (GLCE) at each grade level. This information was obtained from *The MEAP Item Descriptor - Reading*. The number of test items per GLCE at each grade level/course 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. GLCEs that were not tested were assigned a Low (L) priority designation.

Information necessary to make priority designations for the English language arts MME can also be found at the Michigan Department of Education website. *Assessment Design MME 2009* reveals the number of test items per testing category; this number was then averaged. Standard deviations (STD) were calculated and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. HSCEs that were not tested were assigned a Low (L) priority designation. The results can be found in Table 1.

Table 1. English Language Arts Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
2/3	4.43	2.87	1.56	0	1-2	>2
3/4	3.88	3.37	0.51	0	1	>1
4/5	3.44	3.2	0.20	0	1	>1
5/6	33.33	2.83	0.50	0	1	>1
6/7	3.88	2.93	0.94	0	1	>1
7/8	2.11	1.52	0.59	0	1	>1
11	46.50	16.65	29.85	0	1-30	>30

English language arts summary data is presented in Table 2.

Table 2. English Language Arts Assessment Data Summary

English Language Arts			NESS ⁱ			MEAP/MME		
Grade	Strands	GLCE/HSCE	H 1-19	M 20-38	L 39-50	H	M	L
2	4	69	49	16	4	5	2	62
3	4	55	36	15	4	26	1	28
4	4	54	35	15	4	7	1	46
5	4	54	36	14	4	5	3	46
6	4	51	35	12	4	7	2	42
7	4	51	36	12	3	16	4	31
8	4	51	36	12	3	0	0	51
High School	4	91	63	26	2	49	12	30
Totals for All Grades		476	326	122	28	115	25	336

Mathematics

The Michigan mathematics program is a composite of the *Michigan Mathematics Curriculum Framework Standards and Benchmarks* (1996), the *Career and Employability Skills Content Standards and Benchmarks* (2001), the *Michigan K-8 Mathematics Grade Level Content Expectations* (2004), the *Michigan Mathematics Grade Level Content Expectations* (12/05), and the *Michigan Mathematics High School Content Expectations* (HSCE, 2006). The Michigan state assessment program assesses in grades 2-7 using the *Michigan Educational Assessment Program* (MEAP), and in high school using the *Michigan Merit Examination* (MME).

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Michigan Department of Education website. Priority designations for the elementary and middle school grades were determined by using the number of test items per grade level content expectation (GLCE) at each grade level. This information was obtained from *The MEAP Item Descriptor - Mathematics*. The number of test items per GLCE at each grade level/course 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. GLCEs that were not tested were assigned a Low (L) priority designation.

Information necessary to make priority designations for the mathematics MME can also be found at the Michigan Department of Education website. *Assessment Design MME 2009* reveals the number of test items per testing category; this number was then averaged. Standard deviations (STD) were calculated and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. HSCEs that were not tested were assigned a Low (L) priority designation. The results can be found in Table 3.

Table 3. Mathematics Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
2/3	1.46	0.50	0.96	0	1	>1
3/4	1.49	0.50	0.99	0	1	>1
4/5	1.18	0.54	0.64	0	1	>1
5/6	1.34	0.64	0.70	0	1	>1
6/7	1.39	0.49	0.90	0	1	>1
7/8	1.53	0.60	0.93	0	1	>1
11	42.33	12.50	29.83	0	1-30	>30

Mathematics summary data is presented in Table 4.

Table 4. Mathematics Assessment Data Summary

Mathematics			NESS ¹			MEAP/MME		
Grade	Strands	GLCE/HSCE	H 1-16	M 17-42	L 43-70	H	M	L
2	4	42	23	18	1	18	21	3
3	4	44	30	14	0	20	21	3
4	4	56	34	20	2	14	38	4
5	4	44	34	10	0	16	25	3
6	5	44	27	14	3	17	27	0
7	4	32	17	12	3	19	11	2
8	4	41	18	19	4	0	0	41
High School	4	179	65	77	37	173	0	6
Totals for All Grades	33	482	248	184	50	277	143	62

Science

The Michigan science program is a composite of the *Michigan Curriculum Framework Science Benchmarks* (2000), the *Michigan K-8 Science Grade Level Content Expectations v.1.09*, and the *Michigan Science High School Content Expectations* (2006). The Michigan state assessment program assesses in grades 2-7 using the *Michigan Educational Assessment Program* (MEAP), and in high school using the *Michigan Merit Examination* (MME).

Testing Priority Designation

Information necessary to make priority designations relative to assessments was obtained from the Michigan Department of Education website. Priority designations for the elementary and middle school grades were determined by using the number of test items per grade level content expectation (GLCE) at each grade level.

This information was obtained from *The MEAP Item Descriptor - Science*. The number of test items per GLCE at each grade level/course 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. GLCEs that were not tested were assigned a Low (L) priority designation.

Information necessary to make priority designations for the science MME can also be found at the Michigan Department of Education website. *High School Content Standards by Subject-Spring 2010* reveals the number of possible score points per test-eligible standard and specifically which standards were tested. The number of score points per test eligible standard was averaged. Standard deviations (STD) were calculated and subtracted from the mean. This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Standards that were not tested were assigned a Low (L) priority designation. The results can be found in Table 5.

Table 5. Science Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
4/5	12.50	1.80	10.70	0	1-11	>11
7/8	13.00	2.74	10.23	0	1-10	>10
11	3.25	4.84	-1.59	0	1-2	>2

Science summary data is presented in Table 6.

Table 6. Science Assessment Data Summary

Science			NESS ¹			MEAP/MME		
Grade/Course	Strands/ Standards	GLCE/HSCE	H 1-32	M 33-50	L 51-85	H	M	L
2	4	28	24	3	1	NT ²	NT	NT
3	4	50	30	8	12	NT	NT	NT
4	4	46	32	6	8	29	9	8
5	4	44	28	2	14	NT	NT	NT
6	4	49	32	2	15	NT	NT	NT
7	4	58	36	13	9	39	13	6
Earth Science	5	85	33	21	31	10	73	2
Biology	5	102	45	23	34	10	81	11
Chemistry	5	80	29	3	48	10	21	49
Physics	4	83	21	27	35	10	45	28
Totals	43	625	310	108	207	108	242	104

Totals for English Language Arts, Mathematics, and Science

Table 7 presents the number of GLCEs and HSCEs compared to the number of GLCES and HSCES tested. Using this data, the percentage of GLCEs and HSCEs tested was calculated.

Table 7. Totals and Percentages for English Language Arts, Mathematics, and Science

	# of GLCE/HSCE	# of GLCE/HSCE Tested	% of GLCE/HSCE Tested
English LA	476	448	94.12
Mathematics	482	432	89.63
Science	625	418	66.88
Totals	1,583	1,298	82.00