

Wisconsin Knowledge and Concepts Examinations— Criterion Referenced Tests Curriculum Matrix Summary

Wisconsin Student Assessment System

Wisconsin law s. 118.30, in accordance to the federal No Child Left Behind Act, requires testing in grades 3-8 and 10 in reading, and mathematics. Further, the law requires science testing in grades 4, 8, and 10. These tests are referred to as the Wisconsin Knowledge and Concepts Examination.

Curriculum Matrix Priority Designations

Reading

The Assessment Frameworks for Reading provides an indication of the range of coverage on the reading portion of the Wisconsin Knowledge and Concepts Examinations – Criterion-Referenced (WKCE-CRT). Information to determine the priority designations for reading was obtained from **Wisconsin Knowledge and Concepts Examinations Criterion-Referenced Test Educator’s Guide**. This guide can be found at <http://www.dpi.state.wi.us/oea/publications.html>. It provided the number of test items for each objective and sub-skill. The number of test items per sub-skill 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. Sub-skills not tested were assigned a Low (L) priority designation. The results can be found in Table 1 below.

Table 1: Reading Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	5.15	2.8	2.4 = 2	0	1 - 2	>2
4	5.1	3.1	2.0	0	1 - 2	>2
5	5..2	2.3	2.9 = 3	0	1 - 3	>3
6	5.2	1.8	3.4 = 3	0	1 - 3	>3
7	5.2	1.7	3.5 = 3	0	1 - 3	>3
8	5.2	1.7	3.5 = 3	0	1 - 3	>3
10	4.9	3.7	1.2 = 1	0	1	>1

Table 2 below provides a summary of the number of reading priority designations for WKCE-CRT testing.

Table 2. Wisconsin WCKE-CRT Reading Data Summary

Reading			WKCE-CRT			*Curriculum Survey		
Grade	Objectives	Sub-skills	H	M	L	H 1-35	M 36-70	L 71 +
3	4	12	11	1	0	7	5	0
4	4	12	11	1	0	8	4	0
5	4	12	8	4	0	8	4	0
6	4	12	10	2	0	8	4	0
7	4	12	10	2	0	9	3	0
8	4	12	9	3	0	9	3	0
10	4	12	8	1	3	9	3	0
Totals	28	84	67	14	3	58	26	0

Mathematics

The Assessment Frameworks for mathematics provides an indication of the range of coverage on the mathematics portion of the Wisconsin Knowledge and Concepts Examinations – Criterion-Referenced (WKCE-CRT). Information to determine the priority designations for mathematics was obtained from **Wisconsin Knowledge and Concepts Examinations Criterion-Referenced Test Educator’s Guide**. This guide can be found at <http://www.dpi.state.wi.us/oea/publications.html>. It provided the number of test items for each objective and sub-skill. The number of test items per sub-skill at each grade level was averaged. Standard deviations (STD) were calculated for each grade level and subtracted from the average (mean). This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. The WKCE science test blueprints indicate that all the mathematics objectives and sub-skills are tested. Therefore, no Low (L) priority designations were assigned. 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	3.3	1.9	1.4 = 1	0	1	>1
4	3.7	1.9	1.8 = 2	0	1-2	>2
5	3.8	2.1	1.7 = 2	0	1-2	>2
6	3.8	2.1	1.7 = 2	0	1-2	>2
7	3.8	1.9	1.9 = 2	0	1-2	>2
8	3.6	1.8	1.8 = 2	0	1-2	>2
10	3.5	1.8	1.8 = 2	0	1-2	>2

Table 4 below provides a summary of the number of mathematics priority designations for WKCE-CRT testing.

Table 4. Wisconsin WKCE-CRT Mathematics Data Summary

Mathematics				WKCE-CRT			*Curriculum Survey		
Grade	Objectives	Sub-skills	Descriptors	H	M	L	H 1-35	M 36-70	L 71 +
3	6	18	42	36	6	0	28	13	1
4	6	18	47	37	10	0	32	13	2
5	6	18	58	46	12	0	41	14	3
6	6	18	64	59	5	0	43	17	4
7	6	18	66	61	5	0	42	19	5
8	6	18	72	67	5	0	46	21	5
10	6	18	37	23	12	2	28	8	1
Totals	42	126	386	329	55	2	260	105	21

Science

The Assessment Frameworks for science provides an indication of the range of coverage on the science portion of the Wisconsin Knowledge and Concepts Examinations – Criterion-Referenced (WKCE-CRT). Information to determine the priority designations for science was obtained from **Wisconsin Student Assessment System - Criterion-Referenced Test Framework For the Fall Wisconsin Knowledge and Concepts -Examinations Statewide Assessment - Assessment Framework**

for Science In Grades 4, 8, and 10. This document can be found at <http://www.dpi.state.wi.us/oea/wkce-crt.html>. It provided the estimated number of score points for each standard. The percent score points per standard at each grade level grade level were averaged. Standard deviations (STD) were calculated for each grade level and subtracted from the average (mean). This number established the cut-off point between Medium (M) priority designations and High (H) priority designations. Science performance 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	12.5	2.8	9.7 = 10	0	1-10	>10
8	12.6	3.1	9.5 = 10	0	1-10	>10
10	12.6	3.1	9.5 = 10	0	1-10	>10

Table 6 below provides a summary of the number of science priority designations for WKCE-CRT testing.

Table 6. Wisconsin WKCE-CRT Science Data Summary

Science			WKCE-CRT			*Curriculum Survey		
Grade	Objectives	Sub-skills	H	M	L	H 1-35	M 36-70	L 71 +
4	8	45	40	5	0	32	9	4
8	8	63	39	24	0	63	8	3
10	8	60	34	19	7	48	6	6
Totals	24	168	113	48	7	143	23	13

**Totals for WKCE-CRT
Reading, Mathematics, and Science**

Table 7 below summarizes the data for reading, mathematics, and science assessed by the WKCE-CRT.

Table 7. Total for All CRCT and GHSHT Tested Grade Levels

Wisconsin Assessment Frameworks			WKCE-CRT			*Curriculum Survey		
Grade	Assessment Frameworks Standards	Assessment Frameworks Objectives/Math Descriptors	H	M	L	H 1-35	M 36-70	L 71 +
ELA	28	84	67	14	3	58	26	0
Math	42	386	329	55	2	260	105	21
Science	24	168	113	48	7	143	23	13
Grand Total	94	638	509	117	12	461	154	34

**Wisconsin Curriculum Matrix Summary
Total Percentage for WKCE-CRT Tested
Reading, Mathematics and Science**

The data in the tables above suggest that the Wisconsin Department of Public Instruction tests (WKCE-CRT) approximately 98.2 percent of the frameworks assessment objectives/ mathematics descriptors. More specific data relating to the subject areas can be found in Table 8 below.

Total 8. Total Percentages of for WKCE-CRT

	Number of Assessment Objectives/Math Descriptors	Number of Assessment Objectives /Math Descriptors Tested	Percent Assessment Objectives/Math Descriptors Tested
ELA	84	81	96.5
Math	386	384	98.8
Science	168	161	95.9
TOTAL	638	626	98.2

References

Wisconsin Department of Public Instruction <http://www.dpi.state.wi.us>
 Wisconsin Office of Educational Accountability (OEA) <http://www.dpi.state.wi.us/oea/wkce-crt.html>
 OEA Publications and Resources <http://www.dpi.state.wi.us/oea/publications.html>
 Wisconsin Knowledge Concept Examinations <http://www.dpi.state.wi.us/oea/wkce.html>

***Curriculum Survey** in the preceding charts refers to the *International Center for Leadership Education's Survey of Essential Skills*, a forced-ranking by approximately 20,000 adults of the 100 proficiencies deemed most important for high school graduates in each of English, math, and science. Proficiencies ranked 1-35 in each subject were assigned a High (H) rating. Items ranked 36-70 were assigned a Medium (M) rating, and proficiencies ranked 71+ were assigned a Low (L) rating. A complete description of the *Survey of Essential Skill* is provided elsewhere in this resource kit.

