

West Virginia Curriculum Matrix Summary

Statewide Assessments

WESTEST 2 is a criterion-referenced test administered in grades 3-11 that measures student mastery of the West Virginia Content Standards and Objectives (CSOs). WESTEST 2 is administered by the content areas (reading, writing, mathematics, and science) at the grade level of the student’s enrollment. The purpose of the WESTEST is to measure student mastery of the CSOs.

English Language Arts

The English language arts WESTEST 2 is administered in grades 3-11. Only the reading and writing CSOs are assessed.

Testing Priority Designation

Information necessary to make priority designations relative to reading and writing assessments was obtained from the West Virginia Department of Education website. The document, *The Technical Report for WESTEST 2 Bookmark Standard Setting - February 2009*, provided the number of test items per standard eligible for reading and writing assessments. The number of reading and writing test items for each standard at each assessed grade level was averaged. Standard deviations (STD) 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. The reading and writing standards that were not tested were assigned a Low (L) priority designation. The reading and writing priority designation results can be found in Table 1.

Table 1. Reading and Writing Priority Designation Data

Grade	Mean	STD	Mean – STD	Designations		
				L = Low	M = Medium	H = High
3	22.50	8.57	13.93	0	1-14	>14
4	22.50	11.02	11.48	0	1-12	>12
5	22.50	10.21	12.29	0	1-13	>13
6	22.50	9.39	13.11	0	1-13	>13
7	22.50	10.21	12.29	0	1-12	>12
8	22.50	10.21	12.29	0	1-12	>12
9	22.00	8.16	13.84	0	1-14	>14
10	22.50	8.57	13.93	0	1-14	>14
11	22.50	8.57	13.92	0	1-14	>14

Reading and writing summary data are presented in Table 2.

Table 2. Reading and Writing Assessment Data Summary

Reading and Writing			WESTEST 2			NESS*		
Grade	Standards	Objectives	H	M	L	H 1-19	M 20-38	L 39-50
3	3	30	15	5	10	23	6	1
4	3	36	11	11	14	27	8	1
5	3	27	10	7	10	15	10	2
6	3	30	13	3	14	17	9	4
7	3	28	12	3	10	16	9	3
8	3	31	11	5	15	19	9	3
9	3	27	8	7	12	21	6	0
10	3	29	8	8	13	21	8	0
11	3	28	8	7	13	18	8	2
Totals	27	266	96	56	111	177	73	16

Mathematics

The mathematics WESTEST 2 is administered in grades 3-11. It is designed to assess student achievement in numbers and operations, algebra, geometry, measurement, and data analysis and probability in grades 3-8. Content coverage for mathematics students in grades 9-11 includes the following test strands: Algebra I, Geometry, Algebra II, and Data Analysis (9th grade only).

Testing Priority Designation

Information necessary to make priority designations relative to mathematics assessments was obtained from the West Virginia Department of Education website. The document, *The Technical Report for WESTEST 2 Bookmark Standard Setting - February 2009*, provided the number of test items per standard eligible for mathematics assessments. The number of mathematics test items for each standard at each assessed grade level was averaged. Standard deviations (STD) 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. The mathematics standards that were not tested were assigned a Low (L) priority designation. The mathematics priority designation 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
3	9.00	4.16	4.84	0	1-5	>5
4	9.00	3.37	5.63	0	1-6	>6
5	9.00	3.46	5.54	0	1-6	>6
6	9.00	2.08	6.92	0	1-7	>7
7	9.00	2.24	6.76	0	1-7	>7
8	9.00	3.87	5.13	0	1-5	>5
9	9.00	2.38	6.62	0	1-7	>7
10	15.00	1.41	13.59	0	1-14	>14
11	15.00	4.30	10.70	0	1-11	>11

Mathematics summary data are presented in Table 4.

Table 4. Mathematics Assessment Data Summary

Mathematics			WESTEST 2			NESS*			
Grade	Standards	Objectives	H	M	L	H 1-16	M 17-42	L 43-70	
3	5	34	34	0	0	21	11	2	
4	5	28	21	7	0	18	9	1	
5	5	31	23	8	0	22	8	1	
6	5	31	22	9	0	20	8	3	
7	5	29	16	13	0	20	7	2	
8	5	27	16	11	0	17	8	2	
9	Algebra I	1	21	7	14	0	9	7	5
	Conceptual Math	3	17	7	0	10	11	5	1
10	Geometry	1	21	14	7	0	14	6	1
11	Algebra II	1	16	0	16	0	2	6	8
	Trigonometry	1	11	11	0	0	2	3	6
Totals		37	266	171	85	10	156	78	32

Science

The science WESTEST 2 is administered in grades 3-9. The WESTEST 2 science assessments measure what students have learned about the nature of science, contents of science, and applications of science.

Testing Priority Designation

Information necessary to make priority designations relative to science assessments was obtained from the West Virginia Department of Education website. The document, *The Technical Report for WESTEST 2 Bookmark Standard Setting - February 2009*, provided the number of test items per standard eligible for science assessments. The number of science test items for each standard at each assessed grade level was averaged. Standard deviations (STD) 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. The science standards that were not tested were assigned a Low (L) priority designation. The science priority designation 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
3	15.00	4.90	10.10	0	1-10	>10
4	15.00	7.38	7.62	0	1-8	>8
5	15.00	7.65	7.35	0	1-7	>7
6	15.00	7.48	7.52	0	1-8	>8
7	15.00	8.83	6.17	0	1-6	>6
8	14.67	10.01	4.66	0	1-5	>5
9	23.00	5.72	17.28	0	1-17	>17

Science summary data are presented in Table 6.

Table 6. Science Assessment Data Summary

Science			WESTEST 2			NESS*		
Grade	Standards	Content Objectives	H	M	L	H 1-32	M 33-50	L 51-85
3	3	45	45	0	0	27	7	11
4	3	59	48	11	0	34	11	14
5	3	44	37	7	0	22	12	10
6	3	47	41	6	0	23	10	14
7	3	52	45	7	0	25	13	14
8	3	47	41	6	0	23	7	17
9	3	40	26	14	0	22	7	11
Totals	21	334	283	51	0	176	67	91

Totals for Reading/Writing, Mathematics, and Science

Table 7 presents the total number of content objectives compared to the number of content objectives tested. Using this data, the percentage of grade content objectives was calculated for each discipline and the totals were combined for all three disciplines.

Table 7. Totals and Percentages for Reading/Writing, Mathematics, and Science

	Total # Content Objectives	# of Content Objectives Tested	% of Content Objectives Tested
Reading/Writing	266	152	57.2
Mathematics	266	256	96.3
Science	334	334	100.00
TOTALS	866	742	85.70

References

West Virginia Department of Education: <http://wvde.state.wv.us/>

Curriculum and Instruction

Content Standards and Objectives Policies: <http://wvde.state.wv.us/policies/csos.html>

Assessment

WESTTEST 2: https://wvde.state.wv.us/oa/westest_index.html

Data File Cabinet: <http://wvde.state.wv.us/oa/filecabinet.html#westest2>

Technical Report - DRAFT- Technical Report for WESTEST 2 Bookmark Standard Setting - February 2009: <http://wvde.state.wv.us/oa/pdf/WV2009%20Preliminary%20Technical%20Report.pdf>

***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.

