

## Hawaii Content and Performance Standards III Curriculum Matrix Summary

### The Hawaii State Assessment

The Hawaii State Assessment (HSA) is an annual testing program includes a combination of criterion-reference tests and norm reference tests. These tests not only measure students' progress in mastering the Hawaii Content and Performance Standards III (HCPS III) but also provide a means to recognize how Hawaii students' progress compares to students around the nation.

### Curriculum Matrix Priority Designations

#### English Language Arts

Priority designations for the ELA were determined by an analysis of the Benchmark Maps available at [www.standardstookit.k12.hi.us/index.html](http://www.standardstookit.k12.hi.us/index.html). These documents revealed not only the benchmarks eligible for testing but the number of times a given benchmark may be tested. The number of benchmarks for each standard in grades **3 through 10** was summed. Next, the total number of benchmarks for each standard in grades 3-10 was averaged (62 - rounded). The standard deviation was calculated (22 – rounded) and subtracted from the mean (40) to determine the cut-off point between Medium (M) and High (H) priority designations. Low (L) priority designations were only assigned to standards that were not tested at particular grade levels. Medium (M) priority designations were given to those standards that had an average of 1-40 benchmarks tested. High (H) designations were assigned to standards that contained an average of 40 or more benchmarks tested. The results can be found in Table 1 below.

**Table1. Hawaii English Language Arts HSA/HCPS III Data Summary**

English Language Arts			HSA/HCPS III			National Essential Skills Study (NESS) **		
Grade	Standards	Benchmarks	H 41+	M 1-40	L 0	H 1-19	M 20-38	L 39-50
<b>3</b>	7	34	32	2	0	25	7	2
<b>4</b>	7	37	33	4	0	24	10	3
<b>5</b>	7	36	33	3	0	25	11	0
<b>6</b>	7	34	32	2	0	20	14	0
<b>7</b>	7	32	29	3	0	24	8	0
<b>8</b>	7	33	30	3	0	23	10	0
<b>9</b>	7	29	25	4	0	20	8	1
<b>10</b>	7	24	24	0	0	18	6	0
<b>Totals</b>	56	259	238	21	0	179	74	6

## Mathematics

Priority designations for the mathematics were determined by an analysis of the Benchmark Maps available at [www.standardstookit.k12.hi.us/index.html](http://www.standardstookit.k12.hi.us/index.html). These documents revealed not only the benchmarks eligible for testing but the number of times a given benchmark may be tested. The number of benchmarks for each standard in grades **3 through 8, Algebra I, and Geometry** was summed. Next, the total number of benchmarks for each standard in grades 3-8, Algebra I and Geometry was averaged (16 - rounded). The standard deviation (7- rounded) was calculated and subtracted from the mean (9) to determine the cut-off point between Medium (M) and High (H) priority designations. Low (L) priority designations were only assigned to standards that were not tested at particular grade levels. Medium (M) priority designations were given to those standards that had an average of 1-9 benchmarks tested. High (H) designations were assigned to standards that contained an average of 10 or more benchmarks tested. The results can be found in Table 2 below.

**Table 2: Hawaii Mathematics HSA/HCPS III Data Summary**

Mathematics			HSA/HCPS III			National Essential Skills Study (NESS)		
Grade	Standards	Benchmarks	H 10+	M 1-9	L 0	H 1-16	M 17-42	L 43-70
<b>3</b>	14	33	31	2	0	20	9	4
<b>4</b>	14	35	33	2	0	22	10	3
<b>5</b>	14	32	29	3	0	19	12	1
<b>6</b>	14	26	24	2	0	14	12	0
<b>7</b>	14	24	22	2	0	16	5	3
<b>8</b>	14	29	27	2	0	11	12	6
<b>Algebra</b>	14	22	22	0	0	7	7	8
<b>Geometry</b>	14	16	16	0	0	8	4	4
<b>Totals</b>	112	217	204	13	0	117	71	29

## Science

Priority designations for the science were determined by an analysis of the Benchmark Maps available at [www.standardstookit.k12.hi.us/index.html](http://www.standardstookit.k12.hi.us/index.html). These documents revealed not only the benchmarks eligible for testing but the number of times a given benchmark may be tested. The number of benchmarks for each standard in grades **3 through 8, Earth and Space Science, Biological Science, and Physical Science** was summed. Next, the total number of benchmarks for each standard in grades grade level/course was averaged (35 - rounded). The standard deviation (33- rounded) was calculated and subtracted from the mean (2) to determine the cut-off point between Medium (M) and High (H) priority designations. Low (L) priority designations were only assigned to standards that were not tested at particular grade levels. Medium (M) priority designations were given to those standards that had an average of 1-2 benchmarks tested. High (H) designations were assigned to standards that contained an average of 2 or more benchmarks tested. The results can be found in Table 3 below.

**Table 3: Hawaii Science HSA/HCPS III Data Summary**

Science			HSA/HCPS III			National Essential Skills Study (NESS)		
Grade	Standards	Benchmarks	H 3+	M 1-2	L 0	H 1-32	M 33-50	L 51-85
3	8	14	14	0	0	9	3	2
4	8	15	15	0	0	10	3	2
5	8	15	15	0	0	8	1	6
6	8	17	17	0	0	13	3	1
7	8	17	17	0	0	13	3	1
8	8	21	21	0	0	7	5	9
<b>Earth &amp; Space Science</b>	8	22	22	0	0	13	5	4
<b>Biological Sciences</b>	8	26	26	0	0	19	5	2
<b>Physical Science</b>	8	27	27	0	0	14	4	9
<b>Totals</b>	72	174	174	0	0	106	32	36

**Hawaii Curriculum Matrix Summary  
Totals for HSA/HCPS III Tested  
English Language Arts Mathematics and Science**

Table 4 below summarizes the data for English Language Arts, Mathematics, and Science assessed by the HSA/HCPS III Program.

**Table 4. Total for All HSA/HCPS III Tested Grade Levels/Courses**

Hawaii Content and Performance Standards III			HSA/HCPS III			National Essential Skills Study (NESS)		
Grade	Standards	Benchmarks	H	M	L	H	M	L
<b>ELA</b>	56	259	238	21	0	179	74	6
<b>Math</b>	112	217	204	13	0	117	71	29
<b>Science</b>	72	174	174	0	0	106	32	36
<b>Grand Total</b>	240	650	616	34	0	402	177	71

**Hawaii Curriculum Matrix Summary  
Total Percentage for HSA/HCPS III Tested  
Language Arts, Mathematics and Science**

	<b>Number of Benchmarks</b>	<b>Number of Benchmarks Tested*</b>	<b>Percent of GPS Tested Standards</b>
<b>ELA</b>	259	259	100 %
<b>Math</b>	217	217	100 %
<b>Science</b>	174	174	100 %
<b>TOTAL</b>	650	650	100 %

\* Please note that all of Hawaii’s benchmarks are tested. However, not all benchmarks were tested the same number of times at each grade level or course. This can be explained by the scope, sequence, and depth of the course content taught at different grade or course levels.

\*\***NESS (National Essential Skills Survey)** in the preceding subject summary charts refers to the *International Center for Leadership in Education’s* 2007 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 Survey* is provided elsewhere in this resource kit.

**References**

Hawaii Department of Education <http://doe.k12.hi.us/>  
Hawaii Content and Performance Standards III Data Base  
<http://standardstoolkit.k12.hi.us/index.html>  
Accountability Resource Center Hawaii <http://arch.k12.hi.us/index.html>

