

## South Carolina Curriculum Matrix Summary

### Palmetto Achievement Challenge Tests

The South Carolina State Board of Education in compliance to the *Education Accountability Act (ECC) of 1998* and the *No Child Left Behind Act of 2001* (NCLB) has established a performance-based accountability system. The Board of Education has adopted grade-specific, performance-oriented educational standards in English language arts (ELA), mathematics, science, and social studies. Further, the board of education has adopted assessments to measure student performance on these standards. The South Carolina Palmetto Achievement Challenge Tests (PACT) assessment program includes tests in English language arts, mathematics, science, and social studies – for all students in grades three through eight.

### The High School Assessment Program

The High School Assessment Program (HSAP) meets the requirement of the South Carolina Education Accountability Act of 1998. It is also used to measure students' academic achievement on high school standards in accordance with the federal No Child Left Behind Act of 2001. The HSAP assesses academic standards in English language arts and mathematics that students have had opportunity to learn by the end of the tenth grade.

### End-of Course Examination Program

South Carolina's *Education Accountability Act of 1998* requires end-of-course examinations for all middle and high school students enrolled in Elementary Algebra, English 1, and Physical Science. The End-of-Course Examination Program (EOCEP) counts for 20% of a student's grade in each course.

### English Language Arts

The English language arts curriculum is organized into six standards. Each standard is associated with learning indicators or statements of the cognitive process and the content and knowledge and skills students must demonstrate to meet the particular standard.

### Priority Designation

Information necessary to make priority designations was obtained from the South Carolina State Department of Education Web Site. Blueprints for each PACT and HSAP can be accessed at this site. Each blueprint reveals the level of representation given on the test to each standard. The current blueprints can be accessed at the South Carolina State Department of Education Web site at <http://ed.sc.gov/agency/offices/assessment/pact/>.

English language arts priority designations for PACT were determined by examining the number of learning indicators tested in each standard. These numbers were averaged (5 rounded) and the standard deviation was returned (2 rounded) and subtracted from the mean (3) to determine the cutoff point between High (H) and Medium (M) priority designations. Using this method, the following scale was used to determine priority designations in grades 3-8: L = 0, M = 1-3, and H = >3. The high school ELA priority designations were determined by determining the mid-range of HSAP test score points assigned to each standard. These numbers were averaged to find the mean (18 rounded) score points. The standard deviation was calculated (7 rounded) and subtracted from the mean to establish the cut-off point (11) between Medium (M) and High (H) priority designations. Using this method, the following scale was used to determine priority designations: L = 0, M = 11 and H = >11. A summary of these designations are presented in Table 1 below.

**Table 1. English Language Arts Data Summary**

	Standards	Learning Indicators	PACT/HSAP			National Essential Skills Study		
English Language Arts			H	M	L	H 1-19	M 20-38	L 39+
Grade 3	6	52	31	7	4	33	4	5
Grade 4	6	40	28	8	4	33	3	4
Grade 5	6	40	28	8	4	33	4	3
Grade 6	6	42	24	14	4	37	2	3
Grade 7	6	38	26	8	4	36	1	1
Grade 8	6	37	19	14	4	34	2	1
English 1	6	36	27	9	0	33	1	2
English 2	6	36	27	9	0	33	1	2
<b>Totals</b>	54	321	210	77	24	272	18	21

## Mathematics

The South Carolina Mathematics Curriculum Standards 2007 consist of six standards in each grade K-8. One standard is a process standard. The remaining five are content standards based on five mathematics strands: Numbers and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. Information about South Carolina Mathematics Curriculum Standards 2007 can be found at <http://ed.sc.gov/agency/offices/cso/standards/math/>.

## Priority Designations

Information necessary to make priority designations was obtained from the South Carolina State Department of Education Web Site. Blueprints for each for each PACT and HSAP can be accessed at this site. Each blueprint reveals the level of representation given on the test to each standard. To access the current blueprints, go to the South Carolina State Department of Education Web site at <http://ed.sc.gov/agency/offices/assessment/>. The distribution of points per strand in each grade level/course can be assessed here.

The South Carolina Department of Education has detailed information about the distribution of points for each mathematics strand per grade level or course. From the PACT blueprints, the middle point value was obtained for each range of points for each strand. The average number of points per strand (mean) for Grades 3-8 was obtained (11 rounded) and the standard deviation was returned (3 rounded). The standard deviation was subtracted from the mean to determine the cut-off (8 rounded) between Medium (M) and High (H) designations. Therefore, Low (L) = 0, Medium (M) = 1 – 8, and High (H) = > 8.

The same method was used to determine the cut-off point between M and H designation for the HSAP point distributions. The following designations were determined: 0 = L, 1-9 = M, and > 9 = H. A summary of the results for math can be viewed in Table 2 below.

**Table 2. Mathematics Data Summary**

	Strands	Learning Indicators	PACT/HSAP/EOCEP			National Essential Skills Study		
	Mathematics		H	M	L	H 1-16	M 17-42	L 43+
<b>Grade 3</b>	6	46	27	11	8	36	9	1
<b>Grade 4</b>	6	50	36	6	8	34	14	2
<b>Grade 5</b>	6	42	23	11	8	32	7	3
<b>Grade 6</b>	6	42	34	0	08	32	10	0
<b>Grade 7</b>	6	48	48	0	0	27	20	1
<b>Grade 8</b>	6	41	25	8	8	28	13	0
<b>Elementary Algebra</b>	6	53	40	0	13	18	26	9
<b>Totals</b>	42	322	233	36	53	207	99	16

**Science**

The *South Carolina 2000 Science Curriculum Standards* have been revised and are now the *South Carolina 2005 Science Academic Standards*. These new standards are the foundation for the local curriculum and statewide assessment. Information concerning the new curriculum can be found at [www.ed.sc.gov/agency/offices/cso/science](http://www.ed.sc.gov/agency/offices/cso/science).

**Priority Designations**

Information necessary to make priority designations was obtained from the South Carolina State Department of Education Office of Assessment Website ([www.ed.sc.gov/agency/offices/assessment/](http://www.ed.sc.gov/agency/offices/assessment/)). Blueprints for all assessments can be accessed at this site. The blueprint reveals the level of representation given on the test to science standards and indicators for each grade level or course. PACT test questions for 2008 and beyond will measure all of the indicators in the new Science Academic Standards. The South Carolina End-of-Course Examination Program (EOCEP) is required gateway or benchmark courses. Physical Science is the only science course requiring the EOCEP.

The science priority designations for the *South Carolina 2005 Science Academic Standards* were determined using several steps. First the number of test items per standard was determined at each grade level. Second, the probability of an indicator for a given standard was determined because the number of indicators varies. This was done by dividing the number of indicators in each standard by the mid-range number of test items. These probabilities were averaged to determine the mean for the number of test per indicator. Then the standard deviation was returned and subtracted from the mean. This number, one standard deviation below the mean, became the discriminator between Medium (M) and High (H) Priorities. The results of these calculations were performed for grade levels 3-8 and for Physical Science. Table 3 below shows the results for each grade level. Please note that some data in Table 3 are expressed in decimal fractions. The reason is because these averages show very little deviation from the mean. Rounding to whole numbers (in this case) would significantly obscure the data. Therefore, the fractional data in Table 3 was necessary to determine the cut-off points between Low and Medium and Medium and High priority designations.

**Table 3. Priority Designations by Grade Level/Course**

Grade Level/ Course	Mean	Standard Deviation (STD)	Mean-STD= €	Priority Designations by Grade Level/Course		
				Low (L) = 0	Medium (M) = 0-1.1	High (H) = > 1.1
3	1.5	.4	1.1	Low (L) = 0	Medium (M) = 0-1.1	High (H) = > 1.1
4	1.3	.2	1.1	Low (L) = 0	Medium (M) = 0-1.1	High (H) = > 1.1
5	1.4	.2	1.2	Low (L) = 0	Medium (M) = 0-1.2	High (H) = > 1.2
6	1.4	.3	1.1	Low (L) = 0	Medium (M) = 0-1.1	High (H) = > 1.1
7	1.4	.2	1.2	Low (L) = 0	Medium (M) = 0-1.2	High (H) = > 1.2
8	1.2	.2	1.0	Low (L) = 0	Medium (M) = 0-1.2	High (H) = > 1.0
Physical Science	6	1	5	Low (L) = 0	Medium (M) = 0-5	High (H) = > 5

The science summary data is presented in Table 3 below.

**Table 4. Science Data Summary**

	Standards	Learning Indicators	PACT/EOCEP			National Essential Skills Study		
			H	M	L	H 1-32	M 33-50	L 51+
<b>Science</b>			<b>H</b>	<b>M</b>	<b>L</b>	<b>H 1-32</b>	<b>M 33-50</b>	<b>L 51+</b>
<b>Grade 3</b>	5	33	17	16	0	17	15	1
<b>Grade 4</b>	5	37	19	18	0	18	16	3
<b>Grade 5</b>	5	33	17	16	0	20	9	4
<b>Grade 6</b>	5	38	20	18	0	20	17	1
<b>Grade 7</b>	5	34	24	10	0	21	12	1
<b>Grade 8</b>	6	47	28	19	0	11	22	14
<b>Physical Science</b>	7	63	41	22	0	26	33	4
<b>Totals</b>	38	285	166	119	0	133	124	28

**South Carolina Curriculum Matrix Summary Totals For  
PACT, HASP, and EOCEPT Tested Grade Levels and Courses  
In English Language Arts, Mathematics and Science**

Table 5 below summarizes the data for English Language Arts, Mathematics, and Science assessed by the PACT in Grades 3-8 and the HASP and EOCEP tests for high school.

**Table 5. Totals for All PACT, HASP, and EOCEP Tested Grade Levels in English Language Arts, Mathematics and Science.**

	Strands	Learning Indicators	PACT/HASP/EOCEP			Curriculum Survey		
			H	M	L	H 1-35	M 36-70	L 71+
<b>English Language Arts</b>	54	321	210	77	24	272	18	21
<b>Mathematics</b>	42	322	233	36	53	207	99	16
<b>Science</b>	38	285	166	119	0	133	124	28
<b>Grand Totals</b>	134	928	609	232	77	612	241	65

**South Carolina Curriculum Matrix Summary  
Total Percentage for PACT, HSAP and EOCEP Tested in  
English Language Arts, Mathematics and Science**

Table 6 below presents the number of learning expectations compared to the number of learning expectations tested in either/or PACT, HSAP, and EOCEP tests. Using this data, the percentage of learning expectations tested was calculated.

**Table 6. Total Percentage for PACT, HSAP, and EOCEP Tested Grade Levels in English Language Arts, Mathematics, and Science.**

	Number of Learning Indicators	Number of Learning Indicators Tested	Percent of Learning Indicators Tested
<b>English LA</b>	321	287	89%
<b>Mathematics</b>	322	180	56%
<b>Science</b>	285	285	100%
<b>TOTAL</b>	928	752	81%

**Information Sources**

**South Carolina Department of Education Home Website**

The various offices within the structure of the South Carolina Department of Education can be accessed from their home page by clicking on “Agency” on the banner at the top of the page. A list of the offices appears. Access to any one of the offices can be made by clicking on the name of the office. [www.ed.sc.gov.html](http://www.ed.sc.gov.html)

**South Carolina Department of Education Office of Assessment**

The mission of the Office of Assessment is to select or develop and administer high quality assessments of educational attainment that provide reliable information that can be used as the basis

for drawing valid conclusions about examinees and that meet the highest standards of the educational measurement profession. [www.ed.sc.gov/agency/offices/assessment](http://www.ed.sc.gov/agency/offices/assessment)

**South Carolina Department of Education Office of Curriculum and Standards**

The Office of Curriculum and Standards provides statewide leadership and services to schools and districts to ensure implementation of grade-level standards-based instruction for all students. [www.ed.sc.gov/agency/offices/cso](http://www.ed.sc.gov/agency/offices/cso)

