

**Math Out of the Box®
2004 Third Grade Field Test Results
South Carolina Statewide Assessment**

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Math Out of the Box field tests were conducted in a number of schools in South Carolina during the 2004 school year. In four of these schools, the 20 lesson third grade curriculum unit, Plotting and Growing, was taught over a seven week period, early in the second semester. In this report, we present the third grade field tests results of these four schools on the South Carolina Palmetto Achievement Challenge Test (PACT), which is aligned with NCTM standards and was recognized by the Princeton Review in 2003 as one of the best state accountability systems in the nation.

These four schools were quite distinct, with different demographics, instructional expectations, and student populations, but when examined as a single population, the demographics of the collective group of four schools are consistent with South Carolina demographics. The opportunities to learn, while different for each school, were similar for the 2003 and the 2004 third grade students within each school.

By dividing the third graders from the four schools into two populations, 2003 third grade students NOT USING the curriculum unit and 2004 third grade students USING the curriculum, it was possible to make reasonable comparisons between subgroups of students. Our metric for comparison is the percentage of students meeting standard on the PACT. Our results are displayed in the following table.

Subgroups		Percentage of Students Meeting Standard on PACT	
		2003 students NOT USING curriculum units	2004 students USING curriculum units
Third Grade Students	Four Schools	81.3% N = 344	87.3% N = 316
	<i>Statewide</i>	82.3% <i>N = 48,833</i>	82.7% <i>N = 48,378</i>
African American Students	Four Schools	69.0% N = 155	82.8% N = 128
	<i>Statewide</i>	71.6% <i>N = 20,021</i>	72.8% <i>N = 19,351</i>
White Students	Four Schools	91.2% N = 172	92.4% N = 172
	<i>Statewide</i>	90.9% <i>N = 26,369</i>	90.4% <i>N = 26,124</i>
Full Pay Meal Plan	Four Schools	89.8% N = 147	94.2% N = 137
	<i>Statewide</i>	91.8% <i>N = 22,463</i>	91.1% <i>N = 22,253</i>
Subsidized Meal Plan	Four Schools	74.9% N = 195	81.7% N = 180
	<i>Statewide</i>	74.6% <i>N = 26,369</i>	75.7% <i>N = 26,124</i>

In 2003, before the curriculum unit was introduced in the four schools, the percentage of students meeting standard in each of the four-school subgroups is similar to the corresponding statewide percentage. Not only were the demographics of the four-school population similar to South Carolina, but levels of mathematical achievement were also similar in the 2003 school year.

In 2004, after the curriculum unit was introduced in the four schools, the percentage of students meeting standard in each of the four-school subgroups exceeded the corresponding statewide percentage.

For each of the four-school subgroups, there is an improvement in the percentage of students meeting standard when comparing 2003 and 2004. In particular, there is a 14 point gain for African American students and a 7 point gain for students receiving subsidized meal assistance.

This data provides evidence that in the four South Carolina schools, access to the third grade curriculum unit improved mathematical achievement for all subgroups of students, but most significantly for the underrepresented groups of African Americans and students receiving subsidized meal support.

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