



# Understanding the Individual Student Report for the North Carolina End-of-Grade Tests Grades 6, 7, and 8

During the final three weeks of the school year, your child took the state-required multiple-choice North Carolina End-of-Grade Tests in Reading and Mathematics. The end-of-grade tests are administered to students at grades 3–8 as part of the statewide assessment program. These curriculum-based achievement tests are specifically aligned to the North Carolina *Standard Course of Study* and include a variety of strategies to measure the achievement of North Carolina students.

Test scores are among the many ways to find out how well your child is doing in school. Test scores allow you to compare your child's performance with that of other students in the same grade at the school and with other students across North Carolina. However, test scores should always be considered along with *all* other available information provided about your child. Scores on these tests are only one of the many indicators of how well your child is achieving.

Spring 2008 is the first operational administration of the newly revised end-of-grade reading assessment. Therefore, the reading scores from the spring 2008 administration will be delayed. The scores will be released pending results of the scaling and standard-setting process and the approval of the achievement standards by the State Board of Education.

Student scores in reading and mathematics from the end-of-grade tests are used for computing school growth and performance composites as required by the state-mandated ABCs Accountability Program and for determining adequate yearly progress (AYP) under Title I mandates of the *No Child Left Behind Act of 2001*. Student scores are also used in determining student progress and proficiency under state-mandated Student Accountability Standards at grades 3, 5, and 8.

## ***End-of-Grade Testing—Individual Student Report***

The spring 2008 *Individual Student Report* for end-of-grade tests provides information concerning your child's performance on the end-of-grade test of mathematics. Results from the revised North Carolina End-of-Grade Reading Comprehension assessment at grades 6–8 will not be available for student accountability decisions during spring 2008. A sample individual student report is provided on page four to accompany the following explanations of the items found on the report:

- A.** The number of questions your child answered correctly is called a raw score. The raw score is converted to a developmental **scale score**. The scale score depicts growth in mathematics achievement from year to year. You can compare the scale scores on the end-of-grade test given during the last three weeks of the previous school year and the end-of-grade test given during the last three weeks of the current school year to determine your child's growth in reading and mathematics.
- B. Achievement Level** shows the level at which your child performed on the test. Achievement levels are predetermined performance standards that allow your child's performance to be compared to grade-level expectations. Four achievement levels (i.e., Levels I, II, III, and IV) are reported in mathematics.
- C. This student scored at or above** shows the percentile rank that compares your child's performance on the test this year to that of all North Carolina students who took the test in the norming year. The norming year for a test is generally the first year the test was administered. The percentile shows that your child performed at a level equal to or better than the stated percentage of students who took the test during the norming year. For example, if a student scores as well or better than 83% of the students who took the test

- D.** North Carolina public school students are required to meet statewide standards for promotion from grades 3, 5, and 8 and for high school graduation. The standards, also called **gateways**, ensure that students are working at grade level in reading, writing, and mathematics before being promoted to the next grade. **Met State Gateway** is located on the end-of-grade individual student reports at grades 3, 5, and 8 and indicates if the student did (**YES**) or did not (**NO**) meet the state gateway for mathematics. Additional information on the state gateways can be found at <http://www.ncpublicschools.org/promotionstandards/>.
- E.** **Achievement level** shows the four achievement levels and their relation to the scale score.
- F.** **Student** shows your child’s score in relation to the range of possible scores and the achievement levels. Your child’s score is represented by a closed diamond (◆). The bar (▬) across the closed diamond represents where your child’s true score should be about two-thirds of the time (standard error of measurement). On another day or with a different set of test questions, your child might have obtained a slightly different score, but the score should still lie on the horizontal line, assuming no additional instruction was given.
- G-I.** Your child’s scale score is compared to the average scale scores for the **school** (G), the **school system** (H), and the **state** (I). The average scale scores for G–I are represented as open diamonds (◇). The horizontal line (—) across each open diamond represents the range of scores achieved by about two-thirds of the students in the same grade as your child who were tested (one standard deviation). The average scale scores for the school and the school system are based on the spring 2008 test administration. The state average is based on the scores of all North Carolina students who took the test in the norming year (2006).
- J.** The **description of the achievement level** is reported for your child’s performance in mathematics. A complete listing of the four achievement levels for mathematics by grade level may be found at <http://www.ncpublicschools.org/accountability/testing/shared/achievelevel/matheog>.
- K.** The North Carolina *Standard Course of Study* is the framework that guides classroom instruction and assessment for every student in North Carolina and provides competency goals for each grade and high school course to ensure rigorous student academic performance standards that are uniform across the state. On this student report, the **Subscale Performance** section shows the subscale score for the goals and/or section (i.e., calculator active, calculator inactive at grades 6 and 7) reported for the end-of-grade test of mathematics. (At grades 6 and 7, the mathematics test consists of two sections: calculator active and calculator inactive. At grade 8, the test is all calculator active.) The closed diamond (◆) represents your child’s performance at the individual goal level. The bar (▬) represents the standard error of measurement (SEM). The SEM indicates how much your child’s score is expected to vary if tested repeatedly with the same test, assuming that no additional instruction is given. The subscale scores do not reflect the number of items aligned to each goal and/or section. All subscale scores have values between 0 and 20. The state average for all subscales is equivalent to 10. Although the tests meet high professional and legal technical standards as a whole, these technical attributes weaken when the test is taken apart into smaller units. In nearly all cases, the number of items on a test form that represent a single subscale is very small. Therefore, it is imperative that the subscale scores be used as only one piece of information used to qualify instructional or placement decisions.

### ***Key Features of the Mathematics Test***

- The mathematics test assesses achievement in the five strands of the mathematics curriculum: (1) Number and Operations, (2) Measurement, (3) Geometry, (4) Data Analysis and Probability, and (5) Algebra.
- Some of the mathematics items at grades 6–8 are field test items. The field test items do not count toward or against the student’s score.
- At grades 6 and 7, the 82-item test (including field test items) is administered in two parts: Calculator Active (54 questions) and Calculator Inactive (28 questions). Students are allowed to use calculators during the Calculator Active part (66%) of the test. Students are not allowed to use calculators during the Calculator Inactive part (34%) of the test.

- At grade 8, the 80-item test (including field test items) is all Calculator Active. Students at grade 8 are allowed to use calculators for the entire test.
- The minimum (“at least”) calculator requirement for grades 6–8 is any four-function calculator with a square root function,  $y^x$ ,  $\pi(\pi)$ , and algebraic logic.
- The mathematics tests at grades 6 and 7 are administered on two consecutive days.
- The mathematics test at grade 8 is administered on one day.
- The estimated time for students at grades 6 and 7 to complete the mathematics calculator active test is 135 minutes. Students who are not finished at the end of the estimated time may be given additional time. However, no administration of the mathematics calculator active test at grades 6 and 7 may exceed four hours (240 minutes).
- The estimated time for students at grades 6 and 7 to complete the mathematics calculator inactive test is 60 minutes. Students who are not finished at the end of the estimated time may be given additional time. However, no administration of the mathematics calculator inactive test at grades 6 and 7 may exceed two and one-half hours (150 minutes).
- The estimated time for students at grade 8 to complete the mathematics test is 150 minutes. Students who are not finished at the end of the estimated time may be given additional time. However, no administration of the mathematics calculator active test at grade 8 may exceed four hours (240 minutes).

### ***How Can I Help My Child with Mathematics?***

- “Do math” with your child at home as problem-solving partners. Use word problems. Have your child explain how he or she is solving the problems.
- Make a list of all the ways your family uses mathematics at home:
  - Newspapers and weather reports include charts, graphs, data, and statistics.
  - Weather reports include charts, graphs, data, and statistics.
  - Sporting events provide data and statistics.
  - The grocery store affords an opportunity for practicing measurement and estimation.
  - Recipes can be modified.
  - The changing seasons give an opportunity to examine temperature.
  - Road trips encourage map reading and distance, time, and gasoline mileage problems.
- By “doing math” together, you will demonstrate that learning mathematics is fun.

### ***Additional Information***

For additional information on the end-of-grade tests, visit the NCDPI Division of Accountability Services/ North Carolina Testing Program Web site at <http://www.ncpublicschools.org/accountability/testing/eog/>.

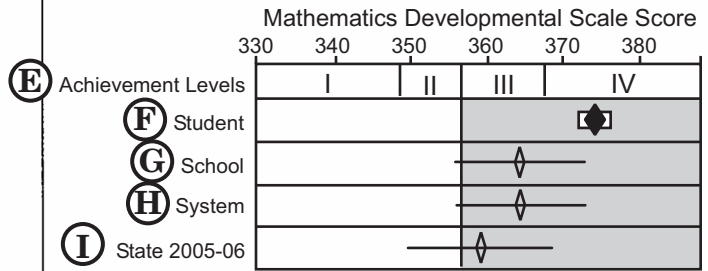
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Office of Innovation and School Transformation  
6301 Mail Service Center  
Raleigh, NC 27699-6301  
Telephone (919) 807-3200; Fax (919) 807-4065.*

Assessment Status  
 Reading Taken

Results from the revised NC End-of-Grade Reading Test at Grades 3-8 will not be available for student accountability decisions during spring 2008. Schools will be required to use the results from the mathematics EOGs and other available student information to make instructional or placement decisions. Reading results will be available fall 2008.

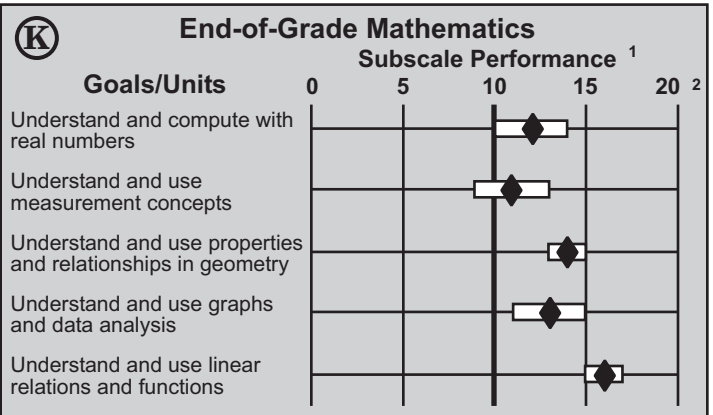
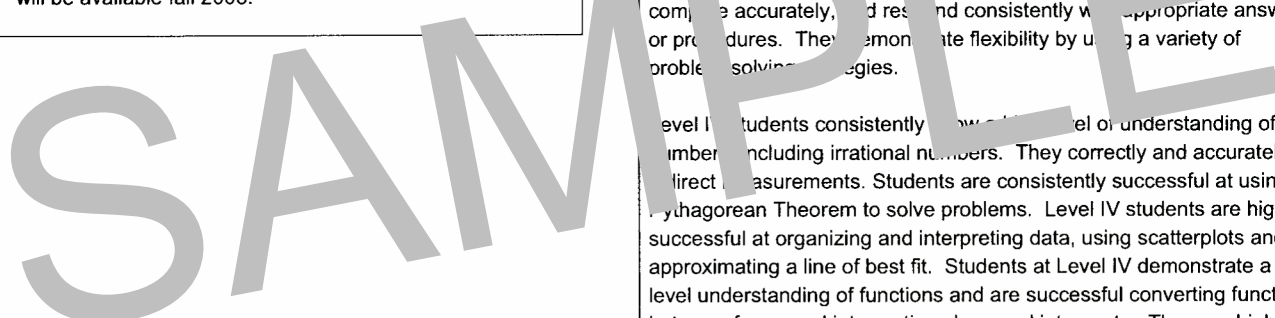
- (A) Mathematics Scale Score 374
- (B) Achievement Level IV
- (C) This student scored at or above 94 percent of students who took the test during the norming year (2006).
- (D) Met State Gateway for Mathematics YES



(J) Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Level IV show a high level of understanding, complete accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Level IV students consistently show a high level of understanding of real numbers including irrational numbers. They correctly and accurately use indirect measurements. Students are consistently successful at using the Pythagorean Theorem to solve problems. Level IV students are highly successful at organizing and interpreting data, using scatterplots and approximating a line of best fit. Students at Level IV demonstrate a high level understanding of functions and are successful converting functions between forms and interpreting slope and intercepts. They are highly successful at using linear equations and inequalities to solve problems, translating between words, tables, and graphs.



<sup>1</sup>Please note that the subscale scores are less reliable than the scale scores because there are fewer questions on which the score is based. Therefore, instructional and placement decisions should not be based solely on these subscale scores.

<sup>2</sup>The state average for all subscales is equivalent to 10 for all subscale scores. The subscale scores do not reflect the number of items aligned to each goal. All subscale scores have values between 0 and 20.