

NCEXTENDI Mathematics Assessment—Grade 4

What are the purposes of the NC Testing Program?

The North Carolina Annual Testing Program is a requirement of General Statute 115C-174.10. As stated, the purposes of North Carolina state-mandated tests are “(i) to assure that all high school graduates possess those minimum skills and that knowledge thought necessary to function as a member of society; (ii) to provide a means of identifying strengths and weaknesses in the education process in order to improve instructional delivery; and (iii) to establish additional means for making the education system at the State, local, and school levels accountable to the public for results.”

The North Carolina Testing Program, effective with the 2000–2001 school year, was expanded in response to the Reauthorization of the Individuals with Disabilities Education Act (IDEA) to include a system of alternate assessments for students with disabilities. Based on the guidance and requirements from the U. S. Department of Education (USED), the **NCEXTENDI** was developed to assess students with significant cognitive disabilities on the grade-level North Carolina Extended Content Standards in reading and mathematics at grades 3–8 and 10, and in science at grades 5, 8, and 10. The **NCEXTENDI** also assesses students in writing at grades 4, 7, and 10. The **NCEXTENDI** replaced the North Carolina Alternate Assessment Portfolio effective with the 2006–2007 school year.

What is measured by the test?

The **NCEXTENDI** Mathematics Assessment—Grade 4 assesses the mathematics components of the grade-four Extended Content Standards of Mathematics North Carolina *Standard Course of Study* (NCSCS) adopted by the North Carolina State Board of Education (SBE) in 2004. The test consists of fifteen performance items. Each student is individually administered the fifteen performance items.

A description of each of the Extended Content Standard goals that are assessed and the percent range of items for each goal are shown in the table below. Each item is also aligned to a thinking-skill level from the cognitive taxonomy described by Marzano et al.

Goal	Description of Goal	Percent Range
1	<ul style="list-style-type: none"> • Develop number sense with rational numbers. • Represent numbers in different forms. • Develop fluency with adding to, taking away from and equal grouping. • Identify and compare part-whole relationships. • Develop flexibility in solving mathematical problems by selecting strategies and using appropriate technology. 	47—53
2	<ul style="list-style-type: none"> • Develop strategies to find perimeter and area. • Solve area, perimeter and measurement problems. 	17—23
3	<ul style="list-style-type: none"> • Place items at specific locations on a grid. • Position items in parallel and perpendicular placements. • Demonstrate model transformation of figures in a plane (recognize that transformed shapes are congruent – exact match) A) Reflections – 	

	flips (mirror) B) Translations – slides C) Rotations – turns	
4	<ul style="list-style-type: none"> • Collect, organize and display data to solve problems (goal is to use graphs and data – bar graphs, tallies, pictographs, Venn diagrams, circle graphs, line plots, tables). • Describe events as certain, impossible, more likely or less likely to occur. 	7—13
5	<ul style="list-style-type: none"> • Demonstrate and extend patterns. • Model and create simple number sentences 	17—23

How is the test administered?

The **NCEXTENDI** Mathematics Assessment—Grade 4 is individually administered to eligible students during the last six weeks of the school year. The assessors use professional judgment to determine an appropriate length of time for each student’s test administration. The **NCEXTENDI** Mathematics Assessment—Grade 4 may be administered in one session or in multiple sessions over several days.

Each item has a script that is read by the assessor when presenting the item to the students. For the **NCEXTENDI** Mathematics Assessment—Grade 4, the items may be read as many times as necessary, unless otherwise noted in the test directions.

How was the test developed?

The items for mathematics were written by NCDPI/Technical Outreach for Public Schools (TOPS) Mathematics content and test development staff. The items were reviewed and revised by trained, practicing North Carolina teachers and educators specializing in the areas of exceptional children, general education, and limited English proficiency during the 2007–2008 school year.

What kinds of scores do students receive on the test?

Students receive an individual student report (ISR) containing a scale score, achievement level ranking (I, II, III, or IV), and descriptions of student performance associated with each achievement level.

How does Edition 2 differ from previous editions of the test?

This edition of the **NCEXTENDI** Mathematics Assessment—Grade 4 contains fifteen on-demand performance items with all items administered to all eligible students. This edition of the **NCEXTENDI** Mathematics Assessment—Grade 4 also contains presentation scripts.

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