

Assessment Brief



Public Schools of North Carolina • State Board of Education • Howard Lee, Chairman • North Carolina Department of Public Instruction • June St. Clair Atkinson, Ed.D., Superintendent

The North Carolina End-of-Grade Test of Science Grades 5 and 8

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North Carolina End-of-Grade Test of Science

The North Carolina End-of-Grade Test of Science at Grades 5 and 8 is required to meet the federal *No Child Left Behind Act* of 2001. As a component of the North Carolina Annual Testing Program, this test falls subject to General Statute §115C-174.10, which states 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 End-of-Grade Test of Science at Grades 5 and 8 assesses the 2004 North Carolina *Standard Course of Study*. The test requires students to demonstrate knowledge of important principles and concepts, understand and interpret laboratory activities, and relate scientific information to everyday situations. In order to align with this curriculum’s focus on inquiry and higher order thinking, the test has a substantial focus on information processing and higher order thinking skills. Information about the content of these objectives may be obtained from the North Carolina Department of Public Instruction Web site at <http://www.ncpublicschools.org/curriculum/science/scos/2004/>.

Testing Window

The North Carolina End-of-Grade Tests (i.e., reading comprehension, mathematics, and science) are administered during the last three weeks of the school

year. The administration of the reading comprehension and mathematics end-of-grade tests must occur on consecutive days. However, the administration of the end-of-grade science test at grades 5 and 8 does not have to occur during the same week and/or on a consecutive day with the reading comprehension and mathematics end-of-grade tests. The science test at grades 5 and 8 may be administered during a different week of the three-week end-of-grade testing window.

For end-of-grade science, all students at the same grade level within a school are administered the test at the same time on the same day. Afternoon administrations of the science test are prohibited except for students who receive certain testing accommodations.

Students at different grade levels cannot be administered the science test in the same classroom. Testing grade levels in two subjects (e.g., reading comprehension and science or mathematics and science) on one day is also prohibited.

Estimated Administration Time

For the end-of-grade science test administration, the stated administration time is the time that the North Carolina Department of Public Instruction estimates it will take for approximately 95% of the tested students to complete the test. The estimated administration time does not include time for the test administrator to read general instructions to students, for students to code the background information, or for students to take scheduled breaks, when appropriate. The estimated administration time for the North Carolina Test of Science at Grades 5 and 8 is about 130 minutes.

Maximum Testing Time Allowed

The NCDPI requires that all students be allowed ample opportunity to complete the end-of-grade test of science. Students who are not finished at the end of the scheduled estimated administration time must be given sufficient time to complete the assessment. However, no administration of an end-of-grade test may exceed the maximum testing time (except for students with documented special needs requiring accommodations, such as *Scheduled Extended Time*). The maximum time allowed for the North Carolina Test of Science at Grades 5 and 8 is 240 minutes.

Percentage of Test Questions by Goal

There are 80 test items on the North Carolina End-of-Grade Science Test at Grades 5 and 8. All questions on the test have the same weight; therefore, the percentage of questions devoted to a specific goal on the test represents the relative weight of the content of that goal in a student's score. The following charts provide the goals and the percentage of questions measuring each goal on the test.

Descriptive Information for the North Carolina End-of-Grade Test of Science—Grade 5

Goal	Description of Goal	Percentage of Test Questions
1	The learner will conduct investigations to build an understanding of the interdependence of plants and animals.	25%–30%
2	The learner will make observations and conduct investigations to build an understanding of landforms.	20%–25%
3	The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.	20%–25%
4	The learner will conduct investigations and use appropriate technologies to build an understanding of forces and motion in technological designs.	25%–30%

Descriptive Information for the North Carolina End-of-Grade Test of Science—Grade 8

Goal	Description of Goal	Percentage of Test Questions
1	The learner will design and conduct investigations to demonstrate an understanding of scientific inquiry.	48%–52%
2	The learner will demonstrate an understanding of technological design.	28%–32%
3	The learner will conduct investigations and utilize appropriate technologies and information systems to build an understanding of the hydrosphere.	28%–32%
4	The learner will conduct investigations and utilize technology and information systems to build an understanding of chemistry.	25%–30%
5	The learner will conduct investigations and utilize appropriate technologies and information systems to build an understanding of evidence of evolution in organisms and landforms.	20%–25%
6	The learner will conduct investigations, use models, simulations, and appropriate technologies and information systems to build an understanding of cell theory.	8%–12%
7	The learner will conduct investigations, use models, simulations, and appropriate technologies and information systems to build an understanding of microbiology.	8%–12%

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*Robert Logan, Associate State Superintendent
Office of Innovation and School Transformation
6301 Mail Service Center
Raleigh, NC 27699-6301
Telephone (919) 807-3200; Fax: (919) 807-4065*