

NCEXTENDI Science Assessment—Grade 10

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* Science Assessment—Grade 10 assesses the science components of the grade-ten Extended Content Standards of Science North Carolina *Standard Course of Study* (NCSCS) adopted by the North Carolina State Board of Education (SBE) in 2004. The test consists of twelve performance items. Each student is individually administered the twelve 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
2	<ul style="list-style-type: none"> • Observe and demonstrate knowledge of the structure and function of the molecular and cellular basis of life <ul style="list-style-type: none"> • Organic molecules (proteins, lipids, carbohydrates, nutrition) • Cells • Enzymes • Maintenance of homeostasis (process of biological balance—temperature, blood sugar, salts, ph, etc.) • Respiration and photosynthesis 	5—11
3	<ul style="list-style-type: none"> • Observe and demonstrate knowledge of reproduction and heredity <ul style="list-style-type: none"> • Asexual and sexual reproduction • Patterns of heredity • Examine the process of natural selection and its relationship to the development of the theory of evolution 	22—28

	<ul style="list-style-type: none"> • Fossil and biochemical evidence • Mechanisms of evolution • Applications (pesticide and antibiotic resistance) 	
4	<ul style="list-style-type: none"> • Observe, compare, and contrast organisms and determine classification based on characteristics. • Examine the processes and adaptations by which organisms carry out life functions <ul style="list-style-type: none"> • Physiology • Structure • Behavior • Internal and external factors in health and disease 	39—45
5	Examine the relationships between organisms and between organisms and the physical environment	22—28

How is the test administered?

The ***NCEXTENDI*** Science Assessment—Grade 10 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*** Science Assessment—Grade 10 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*** Science Assessment—Grade 10, 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 science were written by NCDPI/Technical Outreach for Public Schools (TOPS) Science 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*** Science Assessment—Grade 10 contains twelve on-demand performance items with all items administered to all eligible students. This edition of the ***NCEXTENDI*** Science Assessment—Grade 10 also contains presentation scripts.

When will reports be available for spring 2008?

The score reports for the spring 2008 administration of the ***NCEXTENDI*** Science Assessment—Grade 10 will be delayed until early fall 2008. Analysis of the data and subsequent standard setting must be completed before scale scores and achievement levels can be determined. As soon as these processes are completed, score reports will be produced at the student, school, LEA, and state levels.

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