



2014–2015 NC Final Exams of 4th, 6th, and 7th Grade Science

North Carolina Assessment Specifications

Purpose of the Assessments

NC Final Exams were developed to replace locally developed assessments, providing teachers and principals with a common measure for all students state-wide during a given testing window.

North Carolina Final Exams for Elementary and Middle Grades Science courses will measure students' academic progress in the *NC Essential Standards*, adopted by the North Carolina State Board of Education in June 2010. The *NC Essential Standards* are posted at:
www.ncpublicschools.org/acre/standards/new-standards.

NC Final Exam scores (along with any other relevant end-of-course or end-of-grade assessment scores) will be used in the Educational Value Added Assessment System (EVAAS) to produce student growth measures to satisfy Standards 6 and 8 of the North Carolina Educator Evaluation System. For more information on the North Carolina Educator Evaluation System, go to: www.ncpublicschools.org/effectiveness-model/.

NC Final Exams will not be used for school and district accountability under the READY Accountability Model or for Federal reporting purposes.

Developing Assessments

North Carolina educators were recruited and trained to write new items for the NC Final Exams. The diversity among the item writers and their knowledge of the current standards was addressed during recruitment. Trained North Carolina educators also review items and suggest improvements, if necessary. The use of North Carolina educators to develop and review items strengthens the instructional validity of the items.

Curriculum and Assessment Cycle

2010: North Carolina State Board of Education adoption of the *NC Essential Standards*.

2012–13: Operational administration of the Measures of Student Learning: Common Exams.

2013–14: Redesign and subsequent first operational administration of the NC Final Exams.

2014–15: Second operational administration of the NC Final Exams.

Prioritization of Standards

Members of the Test Development section of the North Carolina Department of Public Instruction (NCDPI) invited teachers to collaborate and develop recommendations for a prioritization of the standards indicating the relative importance of each standard, the anticipated instructional time, and the appropriateness of the standard for multiple-choice and constructed response item formats.

□ Tables 1–3 describe the percentage range of total score points that will appear on the NC Final Exams in Elementary and Middle Science Grades 4, 6, and 7. All NC Final Exams in science grades 4, 6, and 7 will only contain multiple-choice items. The table of test specification weights describe the percent of total score points, rather than the percent of total items.

Table 1. Test Specification Weights for the 4th Grade Science NC Final Exam

Standards	Percent of Total Score Points
Physical Science	
4.P.1	8% to 12%
4.P.2	10% to 14%
4.P.3	7% to 11%
Earth Science	
4.E.1	8% to 12%
4.E.2	10% to 14%
Life Science	
4.L.1	22 % to 26%
4.L.2	14% to 18%
Total	100%

Table 2. Test Specification Weights for the 6th Grade Science NC Final Exam

Standards	Percent of Total Score Points
Physical Science	
6.P.1	13% to 17%
6.P.2	16 % to 22%
6.P.3	7% to 11%
Earth Science	
6.E.1	9% to 14%
6.E.2	16 % to 20%
Life Science	
6.L.1	2% to 8%
6.L.2	10% to 16%
Total	100%

Table 3. Test Specification Weights for the 7th Grade Science NC Final Exam

Standards	Percent of Total Score Points
Physical Science	
7.P.1	13% to 17%
7.P.2	18% to 24%
Earth Science	
7.E.1	20% to 28%
Life Science	
7.L.1	16% to 22%
7.L.2	8% to 14%
<i>Total</i>	<i>100%</i>

Cognitive Rigor

NC Final Exams items in Elementary and Middle Grade Science were aligned to the NC *Essential Standards* using the Revised Bloom’s Taxonomy (RBT). To learn more about RBT, go to: www.ncpublicschools.org/acre/standards/.

Types of Items and Supplementary Materials

All NC Final Exams in Elementary and Middle Grade Science contains four-response-option multiple-choice items.

A complete list of the supplemental test materials (i.e., *NC Final Exams Materials List*) may be reviewed at <http://www.ncpublicschools.org/accountability/common-exams/>.

Released items, any necessary formula/reference sheets, and graph paper (if applicable) are available at <http://www.ncpublicschools.org/accountability/common-exams/released-items/>. Released items may be used by school systems to help acquaint students with items. These materials must not be used for personal or financial gain.

Testing Structure and Test Administration Time

NC Final Exams in 4th, 6th, and 7th Grade Science contains a total of 40 multiple-choice items.

Included in the total item counts are embedded multiple-choice field test items that will not count toward the students score but will be used for purposes of developing items for future test forms.

Students will be given 120 minutes to answer all items. Students should monitor the clock to ensure they allow themselves adequate time to respond to all items.

Appendices A-C show the number of operational test items for each clarifying objective for the 2014–2015 exams. Note that future coverage of objectives could vary within the constraints of the content category weights in *Tables 1-3*.

Test Cycle and Delivery Mode

The NC Final Exams are administered to students enrolled in fall and spring courses. A list of course codes that align with the 2014–15 NC Final Exams (i.e., *Course Codes that Align with the NC Final Exams*) is available at <http://www.ncpublicschools.org/accountability/common-exams/>.

The NC Final Exams are available for paper-and-pencil mode. However, transition to online administrations is proceeding during the 2014–2015 academic year.

NC Final Exam	Fall 2014 Delivery Mode Option(s)	Spring 2015 Delivery Mode Options
Grade 4 Science	Not available Fall 2014	Paper-and-Pencil and Online via NCTest
Grade 6 Science	Paper-and-Pencil only	Paper-and-Pencil and Online via NCTest
Grade 7 Science	Paper-and-Pencil and Online via NCTest	Paper-and-Pencil and Online via NCTest

Appendix A
Grade 4 Science NC Final Exam 2014–15
Number of Items by Clarifying Objectives

The following table shows the number of operational test items for each clarifying objective. Note that future coverage of objectives could vary within the constraints of the test specification weights in *Tables 1–3*. Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.

Grade 4 Science Clarifying Objectives	Number of Items per Objective*
4.E.1.1	2
4.E.1.2	2
4.E.2.1	1
4.E.2.2	2
4.E.2.3	2
4.L.1.1	2
4.L.1.2	3
4.L.1.3	1
4.L.1.4	2
4.L.2.1	2
4.L.2.2	3
4.P.1.1	2
4.P.1.2	2
4.P.2.1	–
4.P.2.2	2
4.P.2.3	3
4.P.3.1	2
4.P.3.2	2

* Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.

Appendix B
Grade 6 Science NC Final Exam 2014–15
Number of Items by Clarifying Objectives

The following table shows the number of operational test items for each clarifying objective. Note that future coverage of objectives could vary within the constraints of the test specification weights in *Tables 1–3*. Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.

Grade 6 Science Clarifying Objectives	Number of Items per Objective*
6.E.1.1	2
6.E.1.2	1
6.E.1.3	1
6.E.2.1	3
6.E.2.2	2
6.E.2.3	2
6.E.2.4	–
6.L.1.1	1
6.L.1.2	1
6.L.2.1	–
6.L.2.2	1
6.L.2.3	4
6.P.1.1	2
6.P.1.2	2
6.P.1.3	2
6.P.2.1	–
6.P.2.2	3
6.P.2.3	4
6.P.3.1	1
6.P.3.2	1
6.P.3.3	2

* Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.

Appendix C
Grade 7 Science NC Final Exam 2014–15
Number of Items by Clarifying Objectives

The following table shows the number of operational test items for each clarifying objective. Note that future coverage of objectives could vary within the constraints of the test specification weights in *Tables 1–3*. Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.

Grade 7 Science Clarifying Objectives	Number of Items per Objective*
7.E.1.1	2
7.E.1.2	2
7.E.1.3	–
7.E.1.4	1
7.E.1.5	2
7.E.1.6	2
7.L.1.1	1
7.L.1.2	3
7.L.1.3	1
7.L.1.4	2
7.L.2.1	2
7.L.2.2	1
7.L.2.3	2
7.P.1.1	2
7.P.1.2	1
7.P.1.3	1
7.P.1.4	2
7.P.2.1	2
7.P.2.2	2
7.P.2.3	3
7.P.2.4	1

* Some objectives not designated with tested items (i.e., “–”) may be a prerequisite objective, may be tested within the context of another objective or may be included as an embedded field test item.