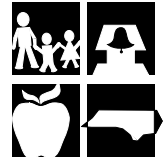


Assessment Brief



Public Schools of North Carolina

State Board of Education • Phillip J. Kirk, Jr., Chairman • North Carolina Department of Public Instruction • Michael E. Ward, Superintendent

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North Carolina Open-Ended Assessments: Grades 4 and 8

Background and Introduction

The North Carolina Open-Ended Assessment was initially implemented in 1992–1993 at grades 3–8 as a component of the North Carolina End-of-Grade Testing Program. The tests contained a balanced number of open-ended questions in reading, mathematics, and social studies for a total of 10 questions. The tests with student-generated responses were scored centrally by teachers during the summer and were designed to inform instruction. No individual student scores were provided from this version of the open-ended assessment. In 1995, with the onset of the ABCs Plan to reform public education, a decision was made to reduce the amount of testing. The open-ended assessment component was suspended during the 1995–1996 school year to allow for planning and revision of the assessment to focus on more challenging subject matter.

Beginning in 1996–1997, the redesigned open-ended assessment was administered to students at grades 5 and 8 on a state-designated testing date in November. The assessment was suspended during the 1998–1999 school year but was reinstated in 1999–2000. The open-ended assessment is administered to students at grades 4 and 8 on one state-designated date in November effective with the 1999–2000 school year.

What is the North Carolina Open-Ended Assessment?

The North Carolina Open-Ended Assessment broadly measures the ability of students to access, organize, process, analyze, evaluate, and make use of information to solve complex problems and make informed decisions. The assessment requires students at grades 4 and 8 to respond in the space provided to 12 items in 90 minutes by writing out their thoughts. One form of the test at each grade is administered statewide each year. To provide time for breaks and general instructions, students at grade 4 receive an additional 18 minutes, and students at grade 8 receive an additional 15 minutes. Students with special needs may use a variety of accommodations, such as Scheduled Extended Time during the administration if the need for the accommodation is documented in the Individualized

Education Program (IEP), Section 504 Plan, or limited English proficiency plan.

Students generate their responses to six reading items and six mathematics items. Students may be directed to write sentences, design brochures, draw tables or charts, or write a paragraph or short essay. The items in both content areas are linked in some way to an authentic reading passage(s). The passage(s) may represent a variety of genres, writing modes, or purposes. While the content of the mathematics items is thematically linked to the reading passage(s), those items are not dependent on an understanding of the content of the passage. The mathematics items measure the mathematics goals and objectives defined in the North Carolina *Standard Course of Study* and stand as independent items. In addition, social studies and science skills and content are embedded in some of the reading and mathematics items. The grade 8 reading section contains an item that requires point-of-view or persuasive writing; grade 4 has an item that requires narrative writing. These items allow for a three-quarter page response and are evaluated on reading comprehension, composition, and applied language conventions. The remaining reading items assess reading comprehension and analytical skills.

Which students participate in this assessment?

All public school students in membership (including charter schools) in grades 4 and 8 are required to take the tests unless the exemption is documented in the IEP, Section 504 Plan, or limited English proficiency guidelines. All exempt students must be administered alternate assessments.

When is the assessment administered?

During the 2000–2001 school year, the open-ended assessment will be administered on the first Thursday in November as early in the school day as the school schedule permits. The test is to be administered to all students at a school at the same time. Afternoon administrations are prohibited. Makeups are administered on the following day.

Are any tools required during testing?

Each student taking the open-ended assessment will be required to have access to the NCDPI-issued/approved six-inch/15-cm leading edge ruler and calculator. The minimum requirements for calculators are: (1) a four-function calculator with memory key for students at grade 4; and (2) a four-function calculator with square root function, y^x , $\pi(\pi)$, and algebraic logic. As these are the minimum requirements, students may use calculators that have more functions (e.g., graphing calculators). However, use of keyboarding calculators and symbol manipulation calculators is prohibited during the open-ended test administration.

How are the assessments scored?

A contractor scores the open-ended assessments using rubrics and scoring criteria developed by a North Carolina Department of Public Instruction (NCDPI) established advisory group composed of North Carolina teachers and curriculum specialists. General rubrics (included in this brief) have been established for reading and for mathematics. The general rubrics ensure a high level of consistency in scoring for all test items within a content area. For example, a score point of two on one reading item should be the same difficulty level as a two on another reading item. In addition to a general rubric, each test item has a specific scoring rubric that defines the level of response expectation for that particular item. Rubrics for the open-ended items generally range from two score points to four score points for items that are more complex and require substantial elaboration.

How are the scores reported?

Scores and student tests for the open-ended assessments typically are returned to the school systems the following spring. Students receive a total scale score on an individual score report for the open-ended assessment with subscores for reading and mathematics. Achievement Levels are provided at grade 8. Achievement levels for grade 4 are not yet established. Student test documents are returned to the teachers along with a scoring guide designed for each grade. Schools and school systems receive class rosters, school rosters, and summary reports. A state report of the results is prepared each year.

What are the scoring guides?

Sample scoring guides have been provided to each LEA test coordinator (including charter schools) for 3rd, 4th, 7th, and 8th grade teachers to provide information for helping students understand the assessment. Scoring guides are also available on the NCDPI website at www.dpi.state.nc.us/accountability/testing. The scoring

guides provide: (1) a complete description of the assessments; (2) item-specific rubrics and sample annotated student responses; and (3) scoring and reporting information. The scoring guides may also be shared with parents.

Rubrics and Sample Information

The general rubrics for reading and mathematics at grades 4 and 8 are included below. A reading passage and items that were field-tested at grade 5 then follow. Item-specific rubrics are also included. This information should provide an indication of the types of items on the open-ended assessments and the scoring standards which are applied.

GENERAL READING RUBRIC GRADES 4 AND 8

- 0 Answer is unresponsive, unrelated, or inappropriate.
- 1 Answer deals with material on a concrete, literal level that is accurate in most dimensions.
- 2 Answer deals with most aspects of the question and makes correct inferences, although minor errors may exist. Comprehension is on an inferential level. The key skills are synthesis and analysis.
- 3 Answer addresses all aspects of the question, uses sound reasons, and cites and explains appropriate examples. Uses skills of evaluation as well as analysis and synthesis.

GENERAL MATHEMATICS RUBRIC GRADES 4 AND 8

- 0 Answer is unresponsive, unrelated, or inappropriate. Nothing is correct.
- 1 Addresses item but only partially correct; something correct related to the question.
- 2 Answer deals correctly with most aspects of the question, but something is missing. May deal with all aspects but have minor errors.
- 3 All parts of the question are answered accurately and completely. All directions are followed.

The passage below describes a visit into a cave. Read the passage and answer questions 1 through 3.

The Big Dark

It sure got dark in Silver Cave, Tim Brody thought. He dug his hands into his pockets, hoping his Aunt Jean and cousin Sam wouldn't see them shaking. He didn't want anyone to know a husky 10-year-old was scared of the dark.

Visiting Silver Cave had been 14-year-old Sam's idea. "You haven't seen anything like it," he had said. "The cave walls look like they're made out of silver. It's great."

"Great" wasn't the word Tim would have used. Though bright bulbs lit the walls, the cave's underground paths had many shadowy places.

As the tour group walked, Tim tried to forget his fear by studying the strangely shaped stalactites. One hanging directly above looked like a carrot; another to its right was shaped like a baseball cap. At a fork in the path there was even a stalagmite that looked like an ice-cream cone.

The path widened into a big rock room. Crystals sparkled from the cave walls.

"Cool, huh?" Sam said in awe.

"Yeah." Tim mumbled. The cold air chilled him, and he thought: *Now can we start back?*

The teen-age guide stopped to talk. "We're 400 feet underground. Would you like to see how dark it gets down here?"

He pressed a switch on the cave wall, and the lights went out. Tim couldn't hold back a gasp. This wasn't like any darkness he had ever known. This was the Big Dark.

There were a few nervous laughs, and Tim's aunt exclaimed: "I can't even see my hand in front of my face. Please turn the lights back on!"

The lights flickered, then went off again. There was the smell of burning rubber.

"Seems there's a short in the wire, folks," the young guide said nervously. "Just a minute, and I'll switch on my flashlight."

Everyone waited. The flashlight switch went *click-click* in the darkness. But there was no light.

"Dead batteries," the guide groaned.

"Why don't we just walk back the way we came?" someone suggested.

"No!" the guide quickly replied. "This whole level will be dark. Besides, the path forks. Only one of the forks will take us back to the cave opening." The guide sounded scared as he added: "I just started working here and don't know the landmarks that well. We could easily get lost."

His last word echoed in the inky blackness. *Lost, lost-*

Tim remembered the stalagmite shaped like an ice-cream cone. "If we get to the fork," he said slowly, trying not to sound scared, "I can find a landmark on the right path."

No one else had noticed the cone-shaped stalagmite, but the tour guide said it was worth a try. He made everyone link hands. "Don't let go, whatever you do," he warned.

As they stumbled forward, Tim felt the Big Dark press close to him. It felt thick and cold and damp. It felt alive.

Unable to see anything in the utter darkness, the line made its way slowly. One woman stumbled, her scream's echo sending chills through Tim. A man hit his head on the cave wall. A kicked stone tumbled and tumbled till out of earshot.

It took a long time to reach the fork in the path. Tim groped around him, but couldn't find the cone-shaped stalagmite.

"Maybe the kid just imagined it," someone muttered. But Sam whispered, "You've *got* to find it, Tim."

You'll never get out, the Big Dark seemed to chuckle. Tim grit his teeth so they wouldn't chatter. His bruised hands scrabbled over cold rock. Suddenly, he stopped.

Was it? Could it be?

"I found it!" he shouted.

Everyone cheered, and the tour guide said: "Good work. *Now* I know which way to go."

They inched forward again. Soon they saw a pale glow pushing back the darkness. A flashlight! A senior guide had come for them!

People began to laugh and say that they hadn't been frightened. But, as the older guide reproved the younger guide for not waiting for help in the dangerous darkness, Sam told his cousin: "I was *scared* back there."

"Me too," Tim admitted.

Then he grinned. Scared or not, he had beaten the Big Dark. And *that* was a great feeling.

"The Big Dark" by Maureen Crane Wartski which appeared in the January 1990 issue of *Boy's Life Magazine*. Reprinted with permission of Lowenstein Associates Inc.

Passage Title: The Big Dark

1. Compare the way Tim felt at the beginning and at the end of the passage. In your comparison, use specific examples from the passage.

ITEM SCORE SCALE

- 0 Answer is unresponsive, unrelated, or inappropriate.
- 1 Answer states the way Tim felt at the beginning and/or at the end of the passage or compares the way Tim felt at the beginning and at the end of the passage. The response (“Tim was scared of the dark, Tim beat the Big Dark at the end, etc.”) may or may not contain examples from the passage and is sparse, confusing, or vague.
- 2 Answer compares the way Tim felt at the beginning and at the end of the passage. The comparison contains some examples from the passage (“at the beginning, Tim didn’t want anyone to know he was afraid of the dark, at the end he told Sam he was scared in the cave, etc.”) but has minor errors or is too brief for a higher score.
- 3 Answer compares the way Tim felt at the beginning and at the end of the passage. The comparison contains specific examples from the passage (“at the beginning, Tim had his hands in his pockets so no one would see them shaking because he was afraid, at the end he admitted he had been scared but he had beaten the Big Dark, etc.”) and is clear, correct, and developed.

2. One of the duties of tour guides at Silver Cave is to describe to visitors how the cave was formed. If you were a tour guide at Silver Cave, what would you tell your tour group about the cave environment? Explain your answer using specific examples from the passage.

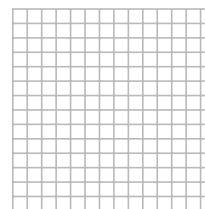
ITEM SCORE SCALE

- 0 Answer is unresponsive, unrelated, or inappropriate.
- 1 Answer explains what a tour guide would tell visitors to Silver Cave about the cave environment. The explanation may be literal (“it was dark, etc.”), may or may not contain examples from the passage and is sparse, confusing, or vague.
- 2 Answer explains what a tour guide would tell visitors to Silver Cave about the cave environment. The explanation contains some examples from the passage (“cold, damp air, no light 400 feet underground, screams echo, how the cave was formed, etc.”) but has minor errors or is too brief for a higher score.
- 3 Answer explains what a tour guide would tell visitors to Silver Cave about the cave environment. The explanation contains specific examples from the passage (“how the cave formations occurred over time, stalactites from the ceiling, stalagmites, sparkling crystals from the cave walls, etc.”) and is clear, correct, and developed.

Tim used the chart below to record the temperatures inside Silver Cave at different levels underground.

Feet Underground	0	50	100	150	200	250	300	350	400
°F	70	68	66	64	62	60	58	56	54

3. Make a properly titled and labeled graph of the data showing the temperature inside Silver Cave at different levels underground.



ITEM SCORE SCALE

- 0 Answer is unresponsive, unrelated, or inappropriate.
- 1 Answer contains a graph with at least one data point accurately displayed.
- 2 Answer contains a graph but something is missing or contains minor errors. e.g., Title is missing or scale on one axis is inappropriate.
- 3 Answer contains a properly labeled and titled graph. All data points are correctly plotted.

4. The big rock room in Silver Cave is rectangular and has an area of 3600 square feet.

What are three possible perimeters of the big rock room?

1. _____ 2. _____ 3. _____

Show how you determined your answer.

ITEM SCORE SCALE

- 0 Answer is unresponsive, unrelated, or inappropriate. Answer contains nothing correct.
- 1 Answer addresses item but is only partially correct. e.g. One perimeter is given with work shown incorrect or missing *or* no perimeters are given but the work shown has merit.
- 2 Answer deals correctly with most aspects of the question, but contains a minor error or omission. e.g., 2 perimeters are given with work shown complete and correct *or* all 3 perimeters given with work shown incorrect or missing.
- 3 Answers deals correctly with all parts of the question. Three possible perimeters are given along with complete and correct work shown.