

North Carolina
EXTEND1 Alternate Assessment
(NCEXTEND1)
Technical Report

An Alternate Assessment for the
Following North Carolina State Assessments:

Reading End-of-Grade (Grades 3–8 & 10)
Mathematics End-of-Grade (Grades 3–8 & 10)
Science End-of Grade (Grades 5, 8 & 10)
Writing Assessments (Grades 4, 7, & 10)



Public Schools of North Carolina
State Board of Education
Department of Public Instruction

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Associate Superintendent
Office of Curriculum and School Reform Services
6307 Mail Service Center
Raleigh, NC 27699-6307
Telephone (919) 807-3761; fax (919) 807-3767



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Chapter One: Introduction

The General Assembly believes that all children can learn. It is the intent of the General Assembly that the mission of the public school community is to challenge with high expectations each child to learn, to achieve, and to fulfill his or her potential (G.S. 115C-105.20a).

With that mission as its guide, the State Board of Education (SBE) implemented the ABCs Accountability Program at grades K–8 effective with the 1996–1997 school year and grades 9–12 effective during the 1997–1998 school year to test students’ mastery of basic skills (reading, writing, and mathematics). The ABCs Accountability Program was developed under the *Public School Laws* mandating local participation in the program, the design of annual academic achievement standards, and the development of student academic achievement standards.

1.1 Universal Participation

The School-Based Management and Accountability Program shall be based upon an accountability, recognition, assistance, and intervention process in order to hold each school and the school’s personnel accountable for improved student performance in the school (G.S. 115C-105.21c).

Schools are held accountable for student learning by reporting student performance results on North Carolina (NC) tests. Students’ scores are compiled each year and released in a report card. Schools are then recognized for the performance of their students. Schools that consistently do not make adequate progress may receive intervention from the state.

In April 1999, the State Board of Education unanimously approved Statewide Student Accountability Standards. These standards provide four Gateway Standards for student performance at grades 3, 5, 8, and 11. Students in the 3rd, 5th, and 8th grades are required to demonstrate grade-level performance in reading, writing (5th and 8th grades only), and mathematics in order to be promoted to the next grade. The law regarding student academic performance states:

The State Board of Education shall develop a plan to create rigorous student academic performance standards for kindergarten through eighth grade and student academic standards for courses in grades 9–12. The performance standards shall align, whenever possible, with the student academic performance standards developed for the National Assessment of Educational Progress (NAEP). The plan also shall include clear and understandable methods of reporting individual student academic performance to parents (G.S. 115C-105.40).



1.2 The North Carolina Statewide Testing Program

The NC Statewide Testing Program was designed to measure the extent to which students satisfy academic performance requirements. Tests developed by the North Carolina Department of Public Instruction (NCDPI), when properly administered and interpreted, provide reliable and valid information that enables:

- students to know the extent to which they have mastered expected knowledge and skills and how they compare to others;
- parents to know if their children are acquiring the knowledge and skills needed to succeed in a highly competitive job market;
- teachers to know if their students have mastered grade-level knowledge and skills in the curriculum and, if not, what weaknesses need to be addressed;
- community leaders and lawmakers to know if students in NC schools are improving their performance over time and how our students compare with students from other states; and
- citizens to assess the performance of the public schools (*NC Testing Code of Ethics, 2000*).

The NC Statewide Testing Program was initiated in response to legislation passed by the NC General Assembly. The following selection from *Public School Law 115C-174.10* states the following purposes of the NC Statewide Testing Program:

(1) to assure that all high school graduates possess the . . . skills and knowledge thought necessary to function as a member of society;

(2) to provide a means of identifying strengths and weaknesses in the education process; and

(3) to establish additional means for making the education system accountable to the public for results.

Tests included in the NC Statewide Testing Program are designed for use as federal, state, and local indicators of student performance. Per the 1997 Reauthorization of the Individuals with Disabilities Education Act (IDEA), the NC Statewide Testing Program, effective with the 2000–2001 school year, was expanded to include a system of alternate assessments for students with disabilities.



1.3 The *NCEXTEND1*

In 2005–06, ***NCEXTEND1*** was developed to assess students with significant cognitive disabilities on grade-level North Carolina *Standard Course of Study* (NCSCS) Extended Content Standards in reading and mathematics at grades 3–8 and 10, science at grades 5, 8, and 10, and writing at grades 4, 7, and 10. ***NCEXTEND1*** was implemented as a field test in the spring of 2006.

At the completion of the operational administration of the ***NCEXTEND1***, Edition 1, analysis of the data and teacher feedback on the administration process and items resulted in the redesign and development of the ***NCEXTEND1***, Edition 2.

In redesigning ***NCEXTEND1***, the test development staff (NCDPI test development staff and the North Carolina State University Technical Outreach for Public Schools (NCSU-TOPS) test development staff) focused on creating an instrument that would meet several goals: (1) comply with federal regulations to assess student performance on grade-level extended content standards, (2) provide increased standardization over the previous version of ***NCEXTEND1***, (3) increase technical quality, and (4) maintain the accessibility required by the targeted population.



Chapter Two: Test Development Process

In June of 2003, the State Board of Education codified the process used in developing all multiple-choice tests in the NC Statewide Testing Program. The development of tests for the NC Statewide Testing Program follows a prescribed sequence of events. The timeline for the redesign of **NCEXTEND1** was compressed. The process followed for the redesign is shown in Figure 1.

Figure 1. Flow chart of the NCEXTEND1 test development process

Curriculum Adoption	Step 6 ^b Conduct Training	Step 12 Analyze Data
Step 1 ^a Develop Test Specifications	Step 7 ^b Administer Field Test	Step 13 ^{ab} Establish Standards
Step 2 ^b Develop Assessment Design	Step 8 Review Field Test Data	Step 14 Report Test Results
Step 3 ^b Develop Performance Items	Step 9 ^b Conduct Evaluation of the Process	
Step 4 ^b Conduct Task Review Conduct Bias Review	Step 10 ^{ab} Administer Test as Fully Operational	
Step 5 ^b Develop and Review Test Administration Procedures	Step 11 ^b Score Test	

^aActivities done only at implementation of new curriculum

^bActivities involving NC teachers

NOTE: Professional development opportunities are integral and ongoing to the curriculum and test development process.



2.1 The Curriculum Connection

Alternate achievement standards must be aligned with the State's academic content standards, promote access to the general curriculum, and reflect professional judgment of the highest learning standards possible for the group of students with the most significant cognitive disabilities. In practice, alignment with the State's academic content standards means that the State has defined clearly the connection between the instructional content appropriate for non-disabled students and the related knowledge and skills that may serve as the basis for a definition of proficient achievement for students with the most significant cognitive disabilities (Federal Register: December 9, 2003 Volume 68, Number 236).

Beginning in 2000, the NCDPI Division of Exceptional Children began holding stakeholder meetings to draft the NCSCS Extensions. The work from this committee resulted in overarching extensions to the NCSCS in English language arts and mathematics with the same extensions applying to all grade levels. These extensions to the NCSCS were approved for students with significant cognitive disabilities in grades 3–8 and 10 by the SBE on November 7, 2002.

In 2004, an advisory committee began discussions related to replacing the overarching approved extensions with grade-level Extended Content Standards. The intent was to ensure that the state's alternate assessment for students with significant cognitive disabilities identified and measured student performance on grade-level content as accessed through grade-level extended content standards.

On December 17, 2004, representatives from the NCDPI Divisions of Exceptional Children, Accountability Services, and Curriculum met to begin the task of developing grade-level Extended Content Standards. At that meeting, it was determined that a multidisciplinary task force of stakeholders was needed to create extended content standards for each content area of the NCSCS.

The task force reviewed the structure of the Massachusetts Alternate Content Standards and discussed their alignment process. Other states' alternate content standards (Kentucky and Colorado), along with the efforts of the NC counties of Wake, Winston-Salem/Forsyth, Buncombe, and Charlotte-Mecklenburg, were reviewed. At the completion of these reviews, the task force developed the following goals:

- 1) Generate extended content standards (English language arts, mathematics, and science) aligned with NCSCS;
- 2) Ensure that the extended content standards reflect the full range of the NCSCS; and



- 3) Ensure alignment between the alternate assessment instrument, extended content standards, and alternate achievement standards.

The completed NCSCS Extended Content Standards were presented to the State Board of Education on March 1, 2006. The complete NCSCS Extended Content Standards are available at the following web address: <http://www.ncpublicschools.org/curriculum/>.

Staff from the Division of Exceptional Children routinely conduct statewide training and develop relevant support materials for teachers, parents, and administrators on the NCSCS Extended Content Standards.

2.2 Assessment Design Process

Assessment redesign meetings began in March 2007 with the goal of reexamining the performance items and assessment process to explore possibilities of creating more standardized performance items and more standard delivery methods that would continue to assess grade-level content and be appropriate for students with severe cognitive disabilities. Topics of discussion included the current **NCEXTEND1** processes and test design, task development, ongoing professional development, other state assessment designs, accessibility and universal design, federal regulations, eligibility criteria, and academic content.

The initial examination began by identifying areas of the current assessment that could be altered to increase standardization of content and delivery across the diverse population assessed by the **NCEXTEND1**. Areas of the assessment examined included:

- Performance Tasks
 - Name
 - Prompts
 - Assessment Instructions
 - Materials Used
- Accommodations
- The Decision Tree Process
- Assessment Instructions
- Access Level Descriptions
- Online Delivery System



As the process continued, examples of performance tasks that employed new standardized elements were created. As the new examples were introduced, it became increasingly evident that even with significant changes the performance items under the current design would always contain unacceptable levels of malleability along with undefined and uncontrolled uniqueness at the student level. It was therefore decided to look at the assessment's overall design and identify positive and negative elements to explore total assessment redesign. The chart below lists the topics discussed.

Table 1. Assessment Redesign Topics

Positive Elements of NCEXTEND1 Design	Negative Elements of NCEXTEND1 Design
Online delivery	Assessment window (last six weeks)
Online data entry and storage	Scaling for writing (no odd scores)
Curriculum alignment	Unbelievably high performance
Teacher buy-in	Cut scores not trustworthy because of issues with variability in the data
Use of 2 assessors	Blueprint might need reworking
Use of local raters (those familiar w/ students)	How to implement effective auditing processes
Performance-based nature of assessment	Replacement of items
Testing irregularity necessary	Lack of training
Principal sign-off	Physical accessibility to items
Helpdesk	Eligibility criteria not being applied
Transfer students	Decision tree
LEAs printing items	Lack of standardization
Logistics (going online, signing up, etc.)	Technical properties
Test coordinators worked well with system	Symbolic levels
	Pool of items lacked variation in difficulty
	Student profiles



	Materials needed
	Number of misadministrations
	Medical exemptions
	Eligibility criteria not followed

Redesign discussions focused on the possibility of developing on-demand items. These items would be standard and fixed with only state-approved accommodations permitted. All items would be presented to all assessed students regardless of cognitive level.

The NCSCS provides every assessed content area a set of competencies for each grade. The intent is to ensure rigorous academic content standards that are uniform across the state. This effort is based on a philosophy of teaching and learning that is consistent with current research, exemplary practices, and national standards. Competency goals in the NCSCS Extended Content Standards in each assessed content area are used in the development of the performance items. Items are written to align to specific grade-level NCSCS Extended Content Standards as defined in the test blueprint.

A committee comprised of NCDPI test development staff and NCSU-TOPS content specialists met to reexamine the original blueprint for the **NCEXTEND1** to determine if the curricular content could be covered with the same competency emphasis given the new item numbers. The appropriateness of the difficulty spread across the assessment was also examined. It was determined that the competency percentages originally defined for the **NCEXTEND1** would remain as the blueprint for the **NCEXTEND1** Edition 2.

To ensure the appropriateness of the student population assessed by **NCEXTEND1**, the eligibility criteria were examined for clarity of language and usefulness in delineating the targeted student population. The NCDPI departments of Accountability Services and Exceptional Children, including test development staff from NCSU-TOPS, began meeting to discuss the criteria and develop drafts for editing in November of 2007. The revised eligibility criteria was disseminated to the state and posted on the NCDPI website on December 17, 2007, at the following address:

<http://www.ncpublicschools.org/accountability/policies/tswd/ncextend1>.

To view the detailed minutes from assessment redesign meetings, see Appendix A.

2.3 Test Specifications

Delineating the purpose of a test must come before the test design. A clear statement of purpose provides the overall framework for test specifications, test blueprint, item



development, tryout, and review. A clear statement of test purpose also contributes significantly to appropriate test use in practical contexts (Millman & Greene, 1993).

Test specifications for the **NCEXTEND1** were developed with the focus on content in accordance with the competency goals specified in the NCSCS Extended Content Standards. It was determined that the test blueprint would be developed using the goal percentages that align with the multiple-choice tests for reading and mathematics at grades 3–8 and 10, science at grades 5, 8, and 10, and writing at grades 4, 7, and 10 to the maximum extent possible.

2.4 Development of Performance Items

The NC Test Development Process requires that NC educators are recruited and trained as item writers for state tests. However, because of the relative newness of the grade-specific NCSCS Extended Content Standards and special education teachers' newly emerging knowledge of the curriculum, it was decided that the initial item development for the **NCEXTEND1** Edition 2 would be conducted by NCSU-TOPS Curriculum Specialists and NCDPI Test Development staff. NC general education and special education teachers are utilized in all reviews of the **NCEXTEND1**. It is the goal of the NCDPI that NC teachers will be trained as **NCEXTEND1** item writers in the future.

Staff from NCSU-TOPS who were integral in the development of the first alternate assessment in NC (the NC Alternate Assessment Portfolio) and Edition 1 of the **NCEXTEND1** who also have expertise regarding the special needs of this student population worked with staff from the NCDPI Division of Exceptional Children to provide item writing training to the content specialists at NCSU-TOPS. Sample materials used in the training are attached in Appendix B. Those staff persons who provided the training were also on hand during item writing sessions held by each content area team.

The **NCEXTEND1** follows an on-demand question and answer format. Each assessment consists of items that are present to students individually in a one-on-one setting. Student responses to presented items are observed and scored by two independent assessors at the time of item presentation. Test materials include a test booklet for each assessor, a Manipulatives Kit, and a reading selection booklet for reading comprehension assessments. The test booklet contains general directions and accommodations/modification information for each assessor and the content of items presented one item per page. Each item page contains a list of the materials to be used from the Manipulatives Kit, directions and script for item presentation, and specific scoring criteria. The materials provided in the Manipulatives Kit represent the information that the students actually see during the test administration. Item presentation to students is formatted similar to that of presentation of flash cards. Manipulatives represent a combination of flash cards with text only, pictures and text, and pictures only. The information provided on the cards is dependent upon the nature of the question. It is stated in the test booklet that adaptations to testing materials, such as substitution of actual objects, can be made if the substitution represents daily instructional practices for that student.



2.5 Reviewing Items and Test Administration Procedures

The NCDPI Test Development staff, special education teachers, English as a second language teachers, and general education teachers are trained in all aspects of item review prior to reviewing all **NCEXTEND1** assessment items. All items are reviewed by general education teachers to assure that the academic content of the item is accurate and correctly linked to the appropriate grade-level NCSCS Extended Content Standard. Special education teachers review each item for appropriateness and meaningfulness for the targeted population, availability of materials, clarity of directions, and accessibility. Based on the comments from the reviewers, items are revised and/or rewritten, item-goal matches are reexamined and changed where necessary, and introductions and diagrams for items are refined. Additional items are developed as necessary to ensure sufficiency of the item pool. This process continues until a specified number of test items are written to each goal, edited, reviewed, and finalized. Test development staff members, with input from the curriculum staff and other content, curriculum, and testing experts, approve each item.

Item writing and review for the **NCEXTEND1** is a continuous effort. A routine evaluation of the items is conducted to determine gaps, overly exposed items, and items that present excessive challenge during the test administration. As a means of gathering more information from teachers who actually execute the assessment, efforts are made to capture comments regarding teachers' impressions of specific items. Those comments are reviewed by NCSU-TOPS staff to aid in ongoing monitoring of item quality. In addition, a committee conducts sensitivity reviews to address potential bias in test items. Bias Review Committee members are selected for their diversity, their experience with special needs students, and/or their knowledge of a specific content area. Items are retained in the assessment pool only if there is agreement among the content specialists and testing specialists that the items appropriately measure knowledge/skills that every student should know based on the NCSCS Extended Content Standards, are fair, free of bias, and do not contain sensitive content that would offend any subgroup of the population.

The evaluation phase of test development is part of NCDPI's continual improvement plan. It is a time for stakeholders to explore all aspects involved, formulate questions, conduct any necessary research, consider possible solutions to any problems that may have arisen and processes that may need refinement, and identify aspects that work effectively and need to be expanded upon.

The effective implementation and sustained quality of the assessment is the result of information-gathering and effective problem solving. Through a systematic approach, both strengths and weakness are identified and acted upon. The following steps are employed during the evaluation of the **NCEXTEND1** process:



- Engage stakeholders.
- Identify all sources of information.
- Gather information.
- Identify areas needing improvement.
- Consider multiple solutions and possible results.
- Develop an action plan, timelines, and rating scales.

The evaluation process that occurred at the end of the 2006–07 school-year resulted in the redesign of this assessment.

2.6 Development and Review of Test Administration Procedures

The ***NCEXTEND1 Test Administrative Guide*** is written to provide the information necessary for school administrators, test coordinators, test administrators, and assessors to implement a standardized administration. Included in the guide are:

- an overview of the relevant policies of the NC Statewide Testing Program;
- a description of the ***NCEXTEND1*** assessment;
- eligibility criteria for ***NCEXTEND1*** participation;
- the test administration process and instructions;
- responsibilities of LEA and school test coordinators, principals and assessors; and
- information on the *Testing Code of Ethics*.

The *Test Administrative Guide* is reviewed internally by NCDPI staff and externally by Regional Accountability Staff.

2.7 *NCEXTEND1* Training

The NC Statewide Testing Program uses both a train-the-trainer model and direct teacher training to prepare test administrators to administer the ***NCEXTEND1***. Regional Accountability Coordinators (RACs) receive training in test administration from the NCDPI Division of Accountability Services, Testing Policy and Operations staff at regularly scheduled monthly training sessions. Subsequently, the RACs provide training on a proper test administration to Local Education Agency (LEA) test coordinators. LEA test coordinators provide training to school test coordinators. The training includes information on the responsibilities of the school principal, school system exceptional children program director, and the ***NCEXTEND1*** assessors. This training also includes requirements for test security and the NC *Testing Code of Ethics* (16 NCAC 6D .0306).

2.8 *NCEXTEND1* Field Testing

NCEXTEND1 Edition 2 was administered in spring 2008 as a combined field test and operational assessment. Administering the test in this way meant that the Division of Accountability Services would reserve the right to count scores as operational only if the items performed as



expected. The assessment was administered to all students eligible to participate in **NCEXTEND1**.

2.9 Review of Field Test Data

Data from the first administration of the **NCEXTEND1** Edition 2 were analyzed in summer 2008. Preliminary results showed average p-values across all items in any particular grade or content area ranged from 0.50 to 0.60. Items that were designated, a priori, as one of three categories of difficulty were examined and found to be aligned in many cases. Subgroup differences tended to show performances as expected. For example, mildly handicapped students showed higher performance than severely disabled students.

2.10 Administering Test as Pilot

The first administration of a new edition of a new test in the NC Statewide Testing Program is treated as a pilot year. This is an opportunity for one additional year of review of item statistics that result when students are administered the test under high stakes conditions. If, after review of pilot data, items are still performing in such a manner as to be deemed appropriate for operational scoring and reporting, results from the pilot year are treated as fully operational. If there are tendencies for underperforming items, test development staff take those additional data and make modifications to the test forms in order to produce better performing tests for the upcoming administration.

In the case of the new edition of the NCEXTEND1, test items did not show any problematic performance and the first year of administration (2007-08) was treated as a typical operational administration. Thus, effective with the 2007–08 school year, results from the NCEXTEND1, Edition 2 are included in the performance composite of NC’s ABCs Accountability Program in the areas assessed. Also, the results will be used as part of each school’s adequate yearly progress (AYP) as required by NCLB legislation. Results for each student will be reported for reading and mathematics (grades 3–8 and 10), science (grades 5, 8, and 10) and for writing (grades 4, 7, and 10).

2.11 Score Test

Students’ answers are recorded by each assessor as correct or incorrect. Scoring criteria is included for each item. Students may answer items by responding in ways used routinely in their daily instruction in the classroom (e.g., eye gazing, verbalizations, pointing, etc.). Student responses for items are recorded on independent by each assessor on the Assessor Rating Sheet. Assessor 1 and Assessor 2 independently rate the student responses and then input the student scores into the **NCEXTEND1** Web Application. The scoring algorithm is a simple summation of each assessor’s rating across all items.



Each student will receive an Achievement Level ranking (I, II, III, or IV) based on alternate academic achievement standards for reading and mathematics at grades 3–8 and 10, for science at grades 5, 8, and 10, and for writing at grades 4, 7, and 10. Students whose performance is reported as Achievement Levels III and IV will be determined to have met the performance standard.

2.12 Establish Academic Achievement Standards

If, after the pilot test, results from item analyses and scoring produce expected results, academic achievement standards (cut scores) are determined for the new edition of a test. The NCDPI has a history of utilizing multiple sources of information in regard to setting academic achievement standards for tests in the statewide testing program. Historically, the process of standard setting has involved two phases. The first phase of standard setting is where the state gathers information from teachers regarding expected performance of students. This information-gathering phase includes both examinee-centered and test-based methods of standard setting (e.g. contrasting groups and Bookmarking). Teachers are informed that their decisions are presented as recommendations in the second phase of standard setting. The second phase of standard setting involves policymakers (State Board of Education) and other stakeholders within the NCDPI, such as curriculum, exceptional children, and assessment staff. Stakeholders within the NCDPI take the recommendations from the teacher panels and consolidate the information to present to the State Board of Education for final approval. Ultimately, the setting of academic achievement standards is a policy decision that is made by the State Board of Education.

2.13 Report Test Results

School systems are required to report scores resulting from the administration of state-mandated tests to students and parents along with available score interpretation information within thirty days of the generation of the score at the school system level or receipt of the score and interpretive documentation from the NCDPI with the only exception being in years where new standards are set for new editions of state assessments. After academic achievement standards have been set, software programs with scoring algorithms are provided to local education agencies (LEAs). LEAs enter their own ratings into the NCEXTEND1 Web Application and student scores are automatically generated (automatic score generation functionality is disabled in standard setting years). The program outputs score reports that contain scores, achievement level designation, and the achievement level descriptor. In years where standard setting is not necessary (i.e., subsequent years following the standard setting year but prior to a new test edition being administered), scanning and scoring of student responses occurs immediately after testing has been completed within an LEA. Data certification is done by the NCDPI in July.



A variety of reports are available LEAs regarding performance on the NCEXTEND1. Reports are aggregated and disaggregated by gender, ethnicity, disability status, LEP status, migrant status, free/reduced lunch status, and Title I status.



Chapter Three: Test Administration

The **NCEXTEND1** is an alternate assessment in which assessors utilize performance items to evaluate student achievement on academic content. **NCEXTEND1** assesses students' performance in reading and mathematics at grades 3–8 and 10, science at grades 5, 8, and 10, and writing at grades 4, 7, and 10. The assessment is designed for students with significant cognitive disabilities who need alternate means to demonstrate their academic performance on the NCSCS Extended Content Standards. Items for the **NCEXTEND1** are grade-level, content-specific performance items based on the NCSCS Extended Content Standards. The standard for grade-level proficiency is a test score at or above Achievement Level III.

To be eligible for **NCEXTEND1** students must meet specific eligibility criteria as explained in the *Test Administrative Guide*. Participation must be documented in the student's current individualized education plan (IEP). Students are assessed during the final six weeks of the school year. Student performance results are submitted using the **NCEXTEND1** Web application.

3.1 **NCEXTEND1** Assessment Process

The decision about eligibility for participation in any assessment lies solely in the hands of the IEP team. However, as test developers, the NCDPI provides guidelines defining the population of students for which the assessment was designed. In order for the student to participate in the **NCEXTEND1** assessment, the IEP team should:

1. Determine that the student has a significant cognitive disability.
2. Determine that the student's program of study accesses the NCSCS through the Extended Content Standards at the student's assigned grade level.
3. Determine that the student, who is in grade 3–8 or grade 10, will not participate in the statewide standard administration, with or without accommodations, of tests designated for the student's grade level. The IEP team must ensure that the decision for a student to participate in a statewide test administration or to participate in the **NCEXTEND1** is not the result of excessive or extended absences or social, cultural, or economic differences. These decisions (and the basis upon which they are made) must be documented in the student's IEP.
4. Address the consequences, if any, that participation in the **NCEXTEND1** may have on the student's educational career, especially in meeting graduation requirements, if applicable.
5. Recommend student participation in the **NCEXTEND1**.



6. Inform the parents/guardians that their child is being evaluated on the NCSCS Extended Content Standards by means of an alternate assessment with alternate academic achievement standards.

3.2 Training for Test Administrators

The NC Statewide Testing Program uses a train-the-trainer model to prepare test administrators to administer NC tests. Regional Accountability Consultants (RACs) receive training in test administration from NCDPI Division of Accountability Services/Testing Policy and Operations staff at regularly scheduled monthly training sessions. Subsequently, the RACs provide training on conducting a proper test administration to LEA test coordinators. LEA test coordinators provide training to school test coordinators. The training includes information on the test administrators' responsibilities, eligibility criteria for testing, policies for testing students with special needs (students with disabilities and students with limited English proficiency), the **NCEXTEND1** web application, test security (storing, inventorying, and returning test materials), and the *Testing Code of Ethics*.

The NC Testing Code of Ethics addresses appropriate professional practices for central office and school administrators, test coordinators, teachers (test administrators), and proctors in the areas of securing tests, administering tests, scoring, reporting, and interpreting test results. Ethical practices for administering NC tests include but are not limited to (1) informing students about the tests and why the tests are important, (2) informing students and parents on how the tests and test results will be used, (3) ensuring that all eligible students take the tests, (4) encouraging students to attempt to respond to all test items and do their very best, (5) preparing students to take the tests, and (6) sharing the results of the tests along with any available interpretation of the scores with students and parents within the allotted timelines. In addition, the importance of maintaining test security at all times must be stressed. Ethical practices promote validity of the test results.

All tests that are part of the NC Statewide Testing Program require a standardized process of administration. In order for test results to be valid, all procedures located in the administrative guide must be followed. It is imperative that the test administrator follows the directions in the administrative guide as written.

While most test administrators may have conducted similar testing sessions previously, test administrators are required each testing cycle to receive training prior to administering or proctoring any secure state test, including any alternate assessment. In addition, the test administrator must study the administrative guide prior to the test administration, thus ensuring that uniform test administration procedures are followed throughout NC.

3.3 Preparation for Test Administration

School test coordinators must be accessible to test administrators and proctors during the administration of secure state tests. The school test coordinator is responsible for monitoring



test administrations within the building and responding to situations that may arise during test administrations. Only employees of the school system are permitted to administer secure state tests. Test administrators are school personnel who have professional training in education and the state testing program. Test administrators may not modify, change, alter, or tamper with student responses on the answer sheets or test books. Test administrators are to thoroughly read the *Test Administrator's Manual* prior to actual test administration; discuss with students the purpose of the test; and read and study the codified *NC Testing Code of Ethics*.

3.4 Test Security and Handling Materials

Compromised secure tests result in compromised test scores. To avoid contamination of test scores, the NCDPI maintains test security before, during, and after test administration at both the school system level and the individual school. According to State Board of Education policy HSP-A-004, secure tests developed by the NCDPI may not be used for purposes other than those approved by the NCDPI Division of Accountability Services and the State Board of Education unless written permission is granted prior to the use. State Board of Education policy specifies that secure tests, including all test material and test questions, are not to be reproduced in any manner. Access to the tests shall be limited to school personnel who have a legitimate need. According to State Board of Education policy HSP-A-010 (16 NCAC 6D.0306), persons who have access to secure test materials shall not use their access to those materials for personal gain. Copying or reproducing test materials represents a breach of test security and is a violation of federal copyright laws, NC Administrative Code, State Board of Education policy, and the *NC Testing Code of Ethics*.

At the individual school, the principal shall account for all test materials received. As established by APA 16 NCAC 6D.0306, the principal shall store test materials in a secure locked area except when in use. Any discrepancies are to be reported to the school system test coordinator immediately, and a report must be filed with the RAC.

3.5 *NCEXTEND1* Assessment Components

Each assessed academic discipline has a unique, grade-specific assessment packet. Each student has an assessment booklet that is used by Assessor 1 to present the test items and record scoring information. Assessment booklets contain all items for the content area at the student's grade level, the assessor directions for item presentation, the script to be read with each item, the scoring criteria, and the Assessor Rating Sheet to record the observed student performance on the ***NCEXTEND1*** assessment items. Assessor 2 also receives an identical assessment booklet. Each reading assessment at grades 3–8 and 10 utilizes a reading selection booklet that is unique to the specific grade level. The grade-specific reading selection booklets contain four selections. Each writing assessment at grades 4, 7, and 10 utilizes a writing prompt that is unique to each grade level.

The NCDPI also provides grade-level manipulative kits in each packet that are necessary to administer the **NCEXTEND1** assessment items. Assessor 1 receives one kit per grade level. Assessors whose students generally require adaptations to materials are allowed to preview manipulatives *in a secure setting* prior to the test administration to allow for time to make accommodations to materials. Additional manipulative kits are available upon request.

The items for the **NCEXTEND1** are single response items. Items are scored as correct or incorrect. No partial credit is given. The items for the **NCEXTEND1** are created to be as accessible as possible for all students. The number of items presented to each student is as follows:

Table 2. Item breakdown by content area

Reading grades 3–8 and 10	15 items
Mathematics grades 3–8 and 10	15 items
Writing grades 4, 7, and 10	7 items
Science grades 5, 8, and 10	12 items

3.6 Assessment Window

The assessment window for **NCEXTEND1** is the final six weeks of the school year. During the testing window, Assessor 1 and Assessor 2 schedule times to assess all students on the required assess areas. Both Assessor 1 and Assessor 2 must be present when all items are presented to the student. If, for any reason, one of the assessors cannot be present, the assessment must be postponed.

Assessor 1 is to present all items to the student. During the item presentation, Assessor 1 will score and record the student responses using the provided Assessor Rating Sheet (located in the Student Assessment Booklet) as each item is presented. Assessor 2 will observe and independently score and record student responses using the Assessor Rating Sheet as the items are presented to the student by Assessor 1.

The classroom is the most appropriate place to assess most students using **NCEXTEND1**. During the assessment the student must have uninterrupted time to perform the item. In limited situations, due to the student’s specific needs, movement in the classroom, or the needs of other students in the class, it may be necessary to provide either additional classroom coverage or testing in a different location or setting. It is the principal’s responsibility to ensure that all students are provided a testing environment that is suitable for assessment and the needs of the student.



School test coordinators create a schedule for assessors to enter their assessment results using the web application. Following the school test coordinator's schedule, all assessors bring all Student Test Booklets containing the Assessor Rating Sheets to the designated secure location to enter their results. Assessors log on to the **NCEXTEND1** Web Application to access their assessment rosters and enter student results. Assessors return all student assessment materials to the school test coordinator. See Chapter Eight for additional information on entering student assessment results using the web application.

The **NCEXTEND1** assessment process requires the principal of the school in which the assessment is administered to verify that the assigned scores are a valid representation of each child's performance by signing each Assessor Rating Sheet. The principal must provide an original signature on the Assessor Rating Sheet to confirm that a student's scores are a valid, appropriate, complete, and true representation of the student's performance on the **NCEXTEND1** assessment items.

3.7 Student Participation

The Administrative Procedures Act 16 NCAC 6D. 0301 requires that all public school students in enrolled grades for which the SBE adopts a test, including every child with disabilities, shall participate in the testing program unless excluded from testing as provided by 16 NCC 6G.0305(g).

All students whose individualized education program has designated it as appropriate are required to participate in the **NCEXTEND1** in every content area assessed at grades 3-8 and 10.

3.8 Testing Accommodations

On a case-by-case basis where appropriate documentation exists, students with disabilities and students with limited English proficiency may receive testing accommodations. The need for accommodations must be documented in a current IEP, Section 504 Plan, or appropriate LEP documentation. The accommodations must be used routinely during the student's instructional program or similar classroom assessments. For information regarding appropriate testing procedures, test administrators who provide accommodations for students with disabilities must refer to the most recent publication of the *Testing Students with Disabilities* document and any published supplements or updates. The publication is available through the local school system or at www.ncpublicschools.org/accountability/policies/tswd. Test administrators must be trained in the use of the specified accommodations by the school system test coordinator, or designee, prior to the test administration.

3.9 Students with Limited English Proficiency

Per HSP-C-005, students identified as limited English proficient shall be included in the statewide testing program. Students identified as limited English proficient that have been



assessed on the state-identified English language proficiency tests (State Board of Education policy HSP-A-011) and scored below Intermediate High in reading may participate in the State-designated alternate assessment for up to two years (24 months) in U.S. schools. For more information on participation for LEP students, visit www.ncpublicschools.com/accountability/policy/slep.

3.10 Medical Exclusions

In some rare cases, students may be excused from the required state tests. The process for requesting special exceptions based on significant medical emergencies and/or conditions is as follows:

For requests that involve significant medical emergencies and/or conditions, the LEA superintendent or charter school director is required to submit a justification statement that explains why the emergency and/or condition prevents participation in the respective test administration during the testing window and the subsequent makeup period. The request must include the name of the student, the name of the school, the LEA code, and the name of the test(s) for which the exception is being requested. Medical documents are not included in the request to the NCDPI. The request is to be based on information housed at the central office. The student's records must remain confidential. Requests must be submitted prior to the end of the makeup period for the respective test(s). Requests are to be submitted for consideration by the LEA superintendent or charter.

3.11 Testing Irregularities

The test administrator or proctor must report any alleged testing violation or testing irregularity to the school test coordinator on the day of the occurrence. The school test coordinator must contact the school system coordinator immediately with any allegation of a testing violation. The school test coordinator must then conduct a thorough investigation and complete the Report of Testing Irregularity: Part 1, which is located in the back of the *Test Administrative Guide*. Part 1 of the irregularity must be completed and filed with the school system test coordinator within five days of the test administration. Different incidents must be documented on separate reports of testing irregularities. If the superintendent or school system test coordinator declares a misadministration, the school system must complete both sides of the Report of Testing Irregularity form prior to sending both sides of the form to the regional accountability coordinator (RAC). *All requested information on the form must be completed.*

Examples of testing irregularities include, but are not limited to, the following:

1. Failing to follow the procedures as described in the *Test Administrative Guide*;



2. Failing to follow the test schedule procedures designated by the NCDPI Division of Accountability Services/NC Statewide Testing Program;
3. Failing to test all eligible students (State Board of Education policy HSP-A-010);
4. Administering tests to ineligible students;
5. Interpreting, explaining, or paraphrasing the test directions or the test items [State Board of Education policy HSP-A-010 (16 NCAC 6D.0306)];
6. Giving students instruction related to the concepts measured by the tests on the morning of the test administration or during the test administration session;
7. Paraphrasing, omitting, revising, or rewriting the script or the directions contained within the test administration booklet;
8. Failing to return the originally distributed number of secure assessment materials (e.g., reading selection booklets, assessment booklets, *Administrative Guides*) to designated school personnel;
9. Allowing school or district personnel who do not have a legitimate need access to the assessment;
10. Failing to administer the assessment documented on the IEP documentation;
11. Failing to follow timelines for assessment requirements; and
12. Removing materials (i.e., assessment booklets and manipulatives kits) from the designated location (i.e., school building).

3.12 Misadministrations

School systems must monitor test administration procedures. According to State Board of Education policy HSP-A-001 (16 NCAC 6D .0302), if school officials discover any instance of improper administration and determine that the validity of the test results has been affected, they must notify the local board of education and order the affected students to be retested. If the school system discovers any instance of an improper administration and determines that the validity of the test results has been affected, a misadministration is declared. Only the superintendent and the school system test coordinator have the authority to declare misadministrations at the local level. When a misadministration is declared, the affected students' scores must be deemed invalid. All misadministrations must be reported to the local board of education and the regional accountability coordinator (RAC). All misadministration decisions to invalidate scores must be reported using the appropriate documentation.



3.13 Invalid Test Scores

In the event that procedures specified in this guide or in state accommodations publications are not followed during the actual test administration, the NCDPI Division of Accountability Services may declare the test scores as nonvalid. If the test scores are invalid, the results are not to be included in a student's permanent record, used for placement decisions, or used for student and school accountability.

3.14 Reporting Student Scores

According to APA 16 NCAC 6D .0302 schools systems shall, at the beginning of the school year, provide information to students and parents or guardians advising them of the district-wide and state-mandated tests that students will be required to take during the school year. In addition, school systems shall provide information to students and parents or guardians to advise them of the dates the tests will be administered and how the results from the tests will be used. Also, information provided to parents about the tests shall include whether the State Board of Education or local board of education requires the test. School systems shall report scores resulting from the administration of the district-wide and state-mandated tests to students and parents or guardians along with available score interpretation information within 30 days from the generation of the score at the school system level or receipt of the score and interpretive documentation from the NCDPI.

3.15 Confidentiality of Student Test Scores

State Board of Education policy states that “any written material containing the identifiable scores of individual students on tests taken pursuant to these rules shall not be disseminated or otherwise made available to the public by any member of the State Board of Education, any employee of the State Board of Education, the State Superintendent of Public Instruction, any employee of the NC Department of Public Instruction, any member of a local board of education, any employee of a local board of education, or any other person, except as permitted under the provisions of the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. § 1232g.”

3.16 Annual Audits

The NCDPI will conduct data audits/monitoring prior to and after the administration of the assessments. The purposes of the data audits/monitoring are to (1) fulfill the *No Child Left Behind Act* monitoring requirements, (2) ensure that students taking the **NCEXTEND1** assessments meet the specific eligibility criteria, (3) validate students' assessment histories, and (4) monitor participation and recording of performance data. The auditing/monitoring of the **NCEXTEND1** participation and performance data ensures that the integrity of the assessment process is maintained and that the validity of the test scores is defensible.



Chapter Four: Scoring and Standard Setting

The **NCEXTEND1** scores are reported as summed raw scores and achievement levels. NC state assessments for the general population are typically reported as scale scores, achievement levels, and percentiles. In particular, the nature of IRT-based scoring and the existence of multiple forms for the general statewide assessments allows for reporting on a predefined scale. In contrast, only one form of the **NCEXTEND1** exists at each grade level and the small sample sizes limits the scoring techniques that can be applied. It was believed that raw scores would suffice for this population and its various stakeholders and would appear most similar to what has been presented in the past with previous incarnations of the alternate assessment (i.e., the NC Alternate Assessment Portfolio and the **NCEXTEND1** Edition 1).

4.1 Scoring the **NCEXTEND1**

Scoring of item responses for the **NCEXTEND1** is done based on assessor ratings of student performance. Each assessor is provided with a test booklet. The test booklet contains administration and scoring directions specific to each assessor. It is explicitly stated in the directions for each assessor that their independent rating of student performance should be based on the scoring criteria listed for each item. Each item is presented with specific scoring criteria like that provided in Figure 2 below. Assessors independently record their ratings on an Assessor Rating Sheet that is included in the test booklet. A sample of the rating sheet is attached in Appendix C.

Figure 2. Excerpt from test booklet item page demonstrating scoring criteria for specific item

Scoring
<ul style="list-style-type: none"> • Score as correct if the student independently indicates the “[blank]” picture/text card or object symbol for “[blank].” • Score as incorrect if the student indicates anything other than the “[blank]” picture/text card or the object symbol for “[blank].” • If the student does not respond, the administrator may repeat the directions to the student two additional times. • Score as incorrect if the student does not respond after three presentations of the directions for this item. • Move to the next item.

Assessors record their independent ratings on the sheet provided and then submit those ratings via the web application. Functionality in the web application provides for immediate



score reporting with the exception that in standard setting years, the immediate scoring function is disabled.

4.2 Standard Setting Process in North Carolina

The NCDPI has a history of utilizing multiple sources of information in regard to setting academic achievement standards for tests in the statewide testing program, including the **NCEXTEND1**. Table 3 shows the types of standard setting methods that have been used in the state assessment system. Historically, the process of standard setting has involved two phases. The first phase of standard setting is where the state gathers information from teachers regarding expected performance of students. This information gathering phase includes both examinee-centered and test-based methods of standard setting (i.e., contrasting groups and Bookmarking). Teachers are informed that their decisions are presented as recommendations in the second phase of standard setting. The second phase of standard setting involves policymakers (State Board of Education) and other stakeholders within the NCDPI, such as curriculum, exceptional children, and assessment staff. Stakeholders within the NCDPI take the recommendations from the teacher panels and consolidate the information to present to the State Board of Education for final approval. Ultimately, the setting of academic achievement standards is a policy decision that is made by the State Board of Education. Beginning in 2006, the State Board of Education established that academic achievement standards set for new editions of state assessments would incorporate more rigor into the level of skills required to be proficient. This directive was taken into account in considerations of the results from the various standard setting methods.

Table 3: Standard Setting Techniques

Technique	Description
Contrasting Groups	In this technique, a group of teachers familiar with the students, and with the definitions of the various achievement levels into which the students are to be placed, separate the students into these groups based on their observations of the students in their classroom (Livingston & Zeikey, 1982); Assessment scores for the students are then calculated. The distribution of scores within the each achievement level is examined. Where the scores between the two groups overlap is where the “cut score” between the two groups is set.
Modified Angoff	This technique is based on the Angoff procedure of presenting panelists with a test booklet wherein they are asked to state the probability that a student in a particular achievement level would answer each item correctly. The modification used in



	<p>North Carolina, particularly for the NCEXTEND1, is that described by Impara and Plake (1997) wherein panelists are asked to visualize the target student (i.e., a student barely in achievement level II, III, or IV) and make a judgment for each item as to whether that student would answer the item correctly. Rather than thinking of probabilities, panelists are simply making dichotomous yes/no decisions about a target student’s ability to answer each item correctly.</p>
<p>Reasoned Judgment</p>	<p>This technique is described as the most straight-forward manner in which to set standards. This technique requires an appropriate group (either an expert panel, a representative group of users, or a policymaker group) to examine the score scale and to divide the full range of possible scores into the number of desired categories (Kingston, Kahl, Sweeney, and Bay, 2001). For example, a 32-point scale might be divided into 4 categories of approximately equal number of points (or different numbers of point is each of the categories), as the group sees fit. The advantage of this strategy is that it takes little time, requires little in the way of process, and does not hide the standard setting in a cloak of mysterious statistical procedures.</p>

4.2.1 Selection of Panelists

For any standard-setting effort, educators and other stakeholders must be involved in the process. For the initial phase of standard setting, NCDPI Test Development staff, NCSU-TOPS staff, and NCDPI Exceptional Children staff participated in setting the interim standards. The makeup of panelists for the externally-facilitated workshop that was held in summer 2009 is provided in the full report in Appendix D and the makeup of the internal agency group who made the recommendations to the State Board of Education for final adoption of cut scores is provided in Appendix E.

4.2.2 NCEXTEND1 Contrasting Groups Standard Setting Results

For tests developed under the NC Statewide Testing Program, an initial standard setting, or the process of determining cut scores for the different achievement levels, is typically accomplished through the use of contrasting groups. Roeber (2002) describes a number of standard setting techniques that might prove appropriate for use with an alternate assessment. Contrasting groups is an examinee-based method of standard setting, which involves the categorization of students into various achievement levels by expert judges who are knowledgeable of students’

achievement in various domains outside of the testing situation and then comparing these judgments to students' actual scores.

For the **NCEXTEND1**, NC teachers were used as the expert judges under the rationale that teachers were able to make informed judgments about students' achievement because they had observed the breadth and depth of the students' work during the school year. Teachers were directed to assign every student who took the **NCEXTEND1** alternate assessment into one of four achievement levels based on their observations of the students in the classroom. Student scores were then calculated and distributed from lowest to highest. This distribution was used to set cut scores. For example, if a grade had 1,000 scores and those scores were distributed from lowest to highest and teachers determined that 35% of students were Level I students, one would count up 350 (35%) scores from the bottom and then locate the cut score between Level I and Level II. Continuing with the example, teachers might have determined that 24.9% of students were in Level II so we would count up the next 249 (24.9%) scores to locate the cut score between Levels II and III. Finally, suppose the teachers deemed that 40.1% of students were in Level III, we would count up the next 401 (40.1%) scores to locate the cut score between Levels III and IV. It should be noted that to avoid an inflation of children categorized as Level IV, the percentage categorized as "No Clear Category" are removed from the cut score calculations. The cut scores are set at each point where the percentage is at or below the teacher judgments. After the first operational administration of the new edition of the **NCEXTEND1** in 2007-08, this process was used for each grade in each content area to inform the setting of interim standards.

Approximately 95% of the students in each grade who participated in **NCEXTEND1** testing were categorized into one of four achievement levels, with the remainder categorized as "not a clear example of any of the achievement levels." This provided a proportional measure of the students expected to score in each of the four achievement levels. Cut scores are the scores at which one achievement level ends and the next achievement level begins. Table 4 presents cut scores and percentages of students at each achievement level for the contrasting-groups technique.

Table 4. Contrasting Groups Score Ranges and Percentages

Subject	Grade		Level I	Level II	Level III	Level IV
ELA	3	Score Range	0-11	12-21	22-27	28-30
		% of Students	28.44	35.90	24.34	11.31
	4	Score Range	0-11	12-21	22-27	28-30



		% of Students	27.16	32.13	28.66	12.06
	5	Score Range	0-11	12-19	20-25	26-30
		% of Students	23.81	29.60	31.49	15.07
	6	Score Range	0-11	12-20	21-27	28-30
		% of Students	20.40	37.00	29.48	13.13
	7	Score Range	0-11	12-21	22-27	28-30
		% of Students	24.88	35.72	30.32	9.08
	8	Score Range	0-11	12-21	22-27	28-30
		% of Students	18.89	36.11	25.18	19.83
	10	Score Range	0-11	12-21	22-27	28-30
		% of Students	30.16	33.51	22.29	14.07
Math	3	Score Range	0-13	14-23	24-29	30
		% of Students	27.88	38.87	26.64	6.63
	4	Score Range	0-9	10-17	18-23	24-30
		% of Students	25.98	36.31	26.80	10.90
	5	Score Range	0-9	10-17	18-25	26-30
		% of Students	20.32	36.20	32.02	11.44
	6	Score Range	0-9	10-17	18-25	26-30
		% of Students	19.70	34.23	32.82	13.27
	7	Score Range	0-11	12-19	20-27	28-30
		% of Students	24.90	28.11	36.31	10.68
	8	Score Range	0-7	8-13	14-25	26-30
		% of Students	18.65	27.20	44.41	9.74



	10	Score Range	0-7	8-15	16-23	24-30
		% of Students	26.47	39.70	26.66	7.21
Science	5	Score Range	0-9	10-15	16-21	22-24
		% of Students	29.98	35.00	28.93	6.08
	8	Score Range	0-7	8-13	14-19	20-24
		% of Students	22.39	43.04	25.76	8.82
	10	Score Range	0-9	10-15	16-21	22-24
		% of Students	33.06	28.37	29.05	9.51
Writing	4	Score Range	0-3	4-7	8-11	12-14
		% of Students	30.28	39.20	24.13	6.38
	7	Score Range	0-3	4-7	8-11	12-14
		% of Students	23.50	39.35	27.46	9.69
	10	Score Range	0-3	4-7	8-11	12-14
		% of Students	34.35	33.18	24.13	8.21

A major disadvantage of this method, as cited by Roeber (2002), is that it relies on teacher judgments of students' ability in skills measured by the alternate assessment that the teachers may not be familiar with. Because of this weakness and general standard setting guidelines that imply multiple methods should be used, the NCDPI consulted additional data before making final recommendations for cut scores to the State Board of Education.

4.2.3 NCEXTENDI Reasoned Judgment Standard Setting Results

The Reasoned Judgment method is considered to be the most straight-forward manner of setting standards. It involves examining the score scale and dividing the full range of possible scores into the number of desired categories (Kingston, Kahl, Sweeney, & Bay, 2001). For example, a 32-point scale might be divided into 4 categories of approximately equal numbers of points, with the cut scores assigned according to the group's judgment.

According to Roeber (2002), the advantages of this strategy are: (1) it requires less time than some of the other methods, (2) it has a less cumbersome process than many of the other methods, and (3) it does not require participants to understand difficult mathematical



procedures in order to set standards. The major disadvantage is that rarely do natural divisions of performance occur, so that it may be difficult to defend the choices that were made or the assignment of particular students to one level or another, because other reasonable people could arrive at different choices. At this point, it is also common to take into account the rigor of cut scores on the corresponding content areas' other assessments (i.e., EOG/EOC, **NCEXTEND2**).

Table 5. Reasoned Judgment Score Ranges and Percentages

Subject	Grade		Level I	Level II	Level III	Level IV
ELA	3	Score Range	0-7	8-17	18-27	28-30
		% of Students	19.41	30.07	39.20	11.31
	4	Score Range	0-9	10-19	20-27	28-30
		% of Students	21.83	30.74	35.38	12.06
	5	Score Range	0-9	10-19	20-25	26-30
		% of Students	19.10	34.31	31.49	15.07
	6	Score Range	0-9	10-19	20-27	28-30
		% of Students	15.79	34.07	37.02	13.13
	7	Score Range	0-9	10-19	20-25	26-30
		% of Students	20.64	31.91	30.46	16.99
	8	Score Range	0-9	10-19	20-27	28-30
		% of Students	14.86	32.42	32.90	19.83
	10	Score Range	0-7	8-17	18-25	26-30
		% of Students	20.44	29.49	30.33	19.77
Math	3	Score Range	0-9	10-19	20-27	28-30
		% of Students	18.96	31.10	36.01	13.95
	4	Score Range	0-7	8-15	16-23	24-30
		% of Students	20.18	32.72	36.19	10.90
	5	Score Range	0-7	8-15	16-25	26-30
		% of Students	15.47	31.36	41.71	11.44
	6	Score Range	0-7	8-15	16-25	26-30
		% of Students	14.25	28.64	43.86	13.27
	7	Score Range	0-7	8-17	18-25	26-30
		% of Students	15.96	29.44	35.57	19.04
	8	Score Range	0-7	8-15	16-25	26-30
		% of Students	18.65	38.84	32.77	9.74
	10	Score Range	0-5	6-13	14-23	24-30
		% of Students	21.78	34.51	36.54	7.21
Science	5	Score Range	0-9	10-15	16-21	22-24
		% of Students	29.98	35.00	28.93	6.08
	8	Score Range	0-7	8-13	14-19	20-24



		% of Students	22.39	43.04	25.76	8.82
	10	Score Range	0-9	10-15	16-21	22-24
		% of Students	33.06	28.37	29.05	9.51
Writing	4	Score Range	0-1	2-5	6-11	12-14
		% of Students	14.04	37.93	41.64	6.38
	7	Score Range	0-1	2-5	6-11	12-14
		% of Students	10.28	31.87	48.16	9.69
	10	Score Range	0-1	2-5	6-11	12-14
		% of Students	17.26	33.51	40.89	8.21

The Reasoned Judgment standard setting results were recommended by a group of stakeholders within the agency who are most familiar with the assessment and the population of students for which the assessment was designed (see Appendix E for a list of the internal participants). Ultimately, the reasoned judgment results were adopted by the State Board of Education as the interim standards for ***NCEXTEND1***. The State Board of Education adopted the interim standards that resulted from the reasoned judgment standard setting in fall 2008. At the time, the interim standards were to serve as the cut scores for two years: 2007-08 and 2008-09. The intent was to conduct a test-based method of standard setting in the summer of 2009 after two full years of administration of the new edition of ***NCEXTEND1***.

4.2.4 NCEXTEND1 Modified Angoff Standard Setting Results

As planned, in summer 2009, the NCDPI contracted with an external facilitator to conduct a test-based method of standard setting for the ***NCEXTEND1***. The standard setting workshop was based on the Impara and Plake (1997) modification of the Angoff (1971) method. In this process, panelists were presented with the assessment just as students would see the assessment and were asked to make item-level judgments. For each item, they were asked to imagine the “target student” and make their best judgment as to whether or not they believed this student would answer the item correctly. Table 6 shows the recommended score ranges that resulted from the standard setting workshop that occurred during summer 2009.

Table 6. Modified Angoff Score Ranges and Percentages

Subject	Grade		Level I	Level II	Level III	Level IV
ELA	3	Score Range	0-7	8-13	14-21	22-30
		% of Students	10.00	20.00	36.00	34.00
	4	Score Range	0-9	10-15	16-23	24-30
		% of Students	13.00	20.00	32.00	35.00
	5	Score Range	0-9	10-17	18-21	22-30
		% of Students	12.00	26.00	19.00	43.00
	6	Score Range	0-9	10-15	16-21	22-30
		% of Students	12.00	20.00	24.00	44.00
	7	Score Range	0-7	8-15	16-21	22-30



		% of Students	7.00	20.00	27.00	46.00
	8	Score Range	0-9	10-15	16-23	24-30
		% of Students	13.00	20.00	33.00	34.00
	10	Score Range	0-9	10-17	18-25	26-30
		% of Students	18.00	24.00	31.00	27.00
Math	3	Score Range	0-7	8-15	16-23	24-30
		% of Students	10.00	19.00	39.00	32.00
	4	Score Range	0-5	6-13	14-19	20-30
		% of Students	10.00	30.00	31.00	29.00
	5	Score Range	0-7	8-17	18-23	24-30
		% of Students	9.00	39.00	26.00	26.00
	6	Score Range	0-9	10-15	16-21	22-30
		% of Students	16.00	22.00	27.00	35.00
	7	Score Range	0-7	8-15	16-23	24-30
		% of Students	8.00	23.00	35.00	34.00
	8	Score Range	0-5	6-13	14-19	20-30
		% of Students	7.00	36.00	30.00	27.00
	10	Score Range	0-5	6-15	16-25	26-30
		% of Students	11.00	51.00	31.00	7.00
Science	5	Score Range	0-5	6-13	14-17	18-24
		% of Students	8.00	34.00	26.00	32.00
	8	Score Range	0-5	6-11	12-15	16-24
		% of Students	11.00	37.00	23.00	29.00
	10	Score Range	0-7	8-15	16-21	22-24
		% of Students	18.00	34.00	34.00	14.00
Writing*	10	Score Range	0-3	4-7	8-11	12-14
		% of Students	27.00	36.00	24.00	13.00

*Writing grades 4 and 7 were not included in the study as they were eliminated from the state testing program at the end of spring 2009.

Results of the Modified Angoff standard setting were, in some grades, dramatically different than those that had been used as interims for the previous two years (compare Tables 5 and 6). If adopted these cut scores would have resulted in dramatic shifts in the percentages of students in various achievement levels across the grades and content areas.

4.4 SBE-Adopted Academic Achievement Standards

As described previously, the NCDPI uses multiple methods to collect information on possible cut scores for all assessments. Data from these multiple methods are used in conjunction to make recommendations to the State Board of Education regarding cut scores. The previous sections describe the three approaches to standard setting that were used for the **NCEXTEND1**. At the conclusion of the externally-facilitated test-based method of standard setting, internal NCDPI committees were convened to review and evaluate the results of the standard setting in



summer 2009. The results of the externally-facilitated workshop were used in conjunction with data related to the existing interim cut scores and their impact on student performance in terms of distribution across achievement levels to guide discussions with an internal NCDPI panel of stakeholders (see Appendix E for membership of this group). The internal agency committee voted unanimously to maintain the existing interim cut scores for the duration of this edition of **NCEXTEND1**. The major factors contributing to this decision were related to consistency, maintaining rigorous standards (a mandate by the State Board of Education), and policies related to retesting. First, the **NCEXTEND1** cut scores have changed multiple times in recent years due to the advent of new assessment designs for this particular component of the assessment system. The panelists felt that the results from the past two years of having interim standards in place showed consistency and that maintaining that consistency would be beneficial particularly in light of the shortness of the remaining duration of this assessment. (This assessment will be redesigned for a new operational administration in 2011-12 due to State Board of Education initiatives to redesign the state curriculum in all content areas.) Second, results from the externally-facilitated test-based standard setting workshop would have impacted state results in such a way that, in most instances, there would be dramatic increases in the percent of students deemed proficient. In a few cases the change would have been a dramatic decrease in the percent of students deemed proficient. An added layer of complexity, that also contributed to the final recommendation to maintain the interim cut scores, is that in 2008-09 the State Board of Education adopted a policy that requires all students who scored a level II on any assessment to be retested. Results showed that on average 14 percent more students were deemed proficient after retest on the **NCEXTEND1**. Thus, combining the knowledge of the increase in percent proficient after retest with the increased percent of students proficient using the cut scores from the externally-facilitated workshop, the internal committee determined the numbers were a major departure from what has been seen in the past and what they determined were realistic expectations of this population. Table 7 is simply an excerpt of information from Table 5, repeating the score ranges for the four achievement levels across grades and content areas. These numbers reflect the cut scores that have been in place since 2007-08.

Table 7. Scale Score Ranges within Four Achievement Levels

Subject	Grade	Level I	Level II	Level III	Level IV
Reading	3	0-7	8-17	18-27	28-30



	4	0-9	10-19	20-27	28-30
	5	0-9	10-19	20-25	26-30
	6	0-9	10-19	20-27	28-30
	7	0-9	10-19	20-25	26-30
	8	0-9	10-19	20-27	28-30
	10	0-7	8-17	18-25	26-30
Math	3	0-9	10-19	20-27	28-30
	4	0-7	8-15	16-23	24-30
	5	0-7	8-15	16-25	26-30
	6	0-7	8-15	16-25	26-30
	7	0-7	8-17	18-25	26-30
	8	0-7	8-15	16-25	26-30
	10	0-5	6-13	14-23	24-30
Science	5	0-9	10-15	16-21	22-24
	8	0-7	8-13	14-19	20-24
	10	0-9	10-15	16-21	22-24
Writing	4	0-1	2-5	6-11	12-14
	7	0-1	2-5	6-11	12-14
	10	0-1	2-5	6-11	12-14

4.5 Achievement Level Descriptors

The four achievement levels in the NC State Testing Program are operationally defined in Table 8. These policy-level achievement level descriptors represent the general knowledge and skill set expected of a student performing at each level. These general achievement level descriptors guide development of grade- and content-specific achievement levels. Specific achievement level descriptors aligned to each grade are presented in Appendix D. The SBE adopted achievement level descriptors for all tests when interim standards were set in fall 2008. Grade and content-specific achievement level descriptors were developed during the period when interim standards were being set in fall 2008 by the same committee of internal NCDPI staff that recommended the reasoned judgment-derived cut scores (see Appendix E).



Table 8. SBE Policy HSP-N-002

Achievement Levels for the North Carolina Statewide Testing Program	
Level I	Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.
Level II	Students performing at this level demonstrate inconsistent mastery of knowledge and skills that are fundamental in this subject area and that are minimally sufficient to be successful at the next grade level.
Level III	Students performing at this level consistently demonstrate mastery of grade-level subject matter and skills and are well prepared for the next grade level.
Level IV	Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade-level work.



Chapter Five: Reports

The NC Statewide Testing Program provides reports at the student level, school level, and state level. The *NC Testing Code of Ethics* dictates that educators use test scores and reports appropriately. This means that educators recognize that a test score is only one piece of information and must be interpreted together with other scores and indicators.

Score reports are generated at the local level to depict achievement for individual students, classrooms, schools, and local education agencies (LEAs). Test data help educators understand educational patterns and practices. Data analysis of test scores for decision-making purposes should be based upon disaggregation of data by student demographics and other student variables as well as an examination of grading practices in relation to test scores, growth trends, and goal summaries for state-mandated tests.

Demographic data are reported on variables such as free/reduced lunch status, LEP status, migrant status, Title I status, disability status, and parents' levels of education. The results are reported in aggregate at the state level usually at the end of June of each year. The NCDPI uses these data for school accountability and to satisfy other federal requirements such as Adequate Yearly Progress (AYP).

5.1 Reporting by Student

The state provides scoring equipment in each school system so that administrators can score all state-required multiple-choice tests. This scoring generally takes place within two weeks after testing so the individual score report can be given to the student and parent before the end of the school year.

Every student with a valid score on an **NCEXTEND1** assessment is given an Individual Student Report (ISR). This single sheet provides information on each student's performance on the assessment. A flyer titled, "Understanding the Individual Student Report," is provided as a supplement to the ISR. This publication offers information for understanding student scores as well as suggestions on what parents and teachers can do to help students in the areas of reading, mathematics, science and writing. Student scores are reported in raw score units as well as achievement levels. Achievement level descriptors are provided for each content area score. A sample ISR can be found in Appendix E and specific content area achievement level descriptors can be found in Appendix D. Achievement Level III is the level students must score to be considered proficient.

5.2 Reporting by Classroom

Classroom rosters can be created from the state-supplied software. For each student, these rosters include a summary of the information contained on the ISR.



5.3 Reporting by School

Since 1997, student performance for each elementary and middle school has been released by the state through the ABCs School Accountability system. For each school, stakeholders can see the actual performance for groups of students at the school in reading, mathematics, science, and writing; the percentage of students tested; whether the school met or exceeded goals that were set for it; and the status designated by the state.

5.4 Reporting by District

Each district receives its own LEA summary of student performance of how the LEA performed in terms of AYP. District level reports can also be accessed online through various resources such as the online customizable “Greenbook” located at:

<http://report.ncsu.edu/ncpublicschools/> and through the ABCs reporting tool located at: <http://abcs.ncpublicschools.org/abcs/>.

5.5 Reporting by the State

The NCDPI reports information on student performance in various ways. The NC Report Cards provide information about K–12 public schools (including charter and alternative schools) at the school, system, and state level. Each report card includes a school or district profile and information about student performance, safe schools, access to technology, and teacher quality.



Chapter Six: Descriptive Statistics, Reliability, and Validity

The **NCEXTEND1** is an alternate assessment based on alternate achievement standards that requires two assessors to observe and independently score students on performance assessment items. Assessment items are designed to allow students to demonstrate proficiency on grade-level competencies as defined by the NCSCS Extended Content Standards. It is expected that the assessors have a full understanding of the NCSCS Extended Content Standards.

6.1 NCEXTEND1 Descriptive Statistics

Basic descriptive statistics (e.g., number of participants, mean scale scores, distributions of students' scores and achievement levels, etc.) are reported for each complete administration of **NCEXTEND1** in reading and mathematics at grades 3–8 and 10; science at grades 5, 8 and 10; and writing at grades 4, 7, and 10. These descriptive statistics are analyzed at the disaggregated level for various subpopulations of students taking **NCEXTEND1**. Table 8 shows the number of participants, average score and standard deviation, and percent of students proficient for each grade and subject combination. Table 9 also shows the demographic breakdown of the population of test takers.

The data were analyzed with respect to gender and ethnicity for average scores. With regard to gender, differences between performance across grades were less than one point in reading, science, and writing. In mathematics, there were several grades where males outperformed females by greater than one point. With regard to ethnicity, any differences that existed for the two major subgroups, whites and blacks, were less than one point and did not consistently favor one group over the other across the content areas or grades. Examination of scores by other subgroup disaggregations is limited by small sample sizes. Average scores for each grade and content area are provided below. Note that the possible range of scores for reading and math is 0–30, for science is 0–24, and for writing is 0–14.

Table 9. Average Scores and Percent of Students Proficient by Grade and Subject

Grade/Subject	N	Mean Score	SD	Percent Proficient
Grade 3 Mathematics	850	18.47	8.28	49.96
Grade 3 Reading	850	16.92	8.45	50.51
Grade 4 Mathematics	817	14.70	7.18	47.09
Grade 4 Reading	817	17.86	8.46	47.44
Grade 4 Writing	817	5.32	3.59	48.02
Grade 5 Mathematics	720	16.16	7.29	53.15
Grade 5 Reading	720	17.65	7.49	46.56



Grade 5 Science	720	12.58	5.93	35.01
Grade 6 Mathematics	710	16.35	7.61	57.13
Grade 6 Reading	710	18.28	7.92	50.15
Grade 7 Mathematics	664	17.70	8.27	54.61
Grade 7 Reading	664	17.61	8.13	47.45
Grade 7 Writing	662	6.03	3.67	57.85
Grade 8 Mathematics	862	14.34	7.47	42.51
Grade 8 Reading	862	18.67	8.24	52.73
Grade 8 Science	862	10.97	5.73	34.58
Grade 10 Mathematics	560	12.76	7.08	43.75
Grade 10 Reading	560	17.18	8.79	50.10
Grade 10 Science	560	12.44	6.77	38.56
Grade 10 Writing	559	5.42	3.83	49.10

*Table 10. Population Demographics in Percentages**

Disaggregation Category	3	4	5	6	7	8	10
Female	32.99	33.06	33.55	33.52	34.26	33.87	36.83
Male	67.01	66.94	66.45	66.48	65.74	66.13	63.17
White	49.32	45.43	46.63	49.31	48.10	48.03	47.17
African American	35.49	40.69	37.38	37.77	38.92	37.70	43.17
Hispanic	8.05	8.32	8.32	7.42	7.00	8.00	4.83
Autistic	29.08	30.06	27.78	22.98	24.43	24.16	25.09
Mild Intellectual Disability	25.26	23.11	18.70	22.84	21.07	16.73	13.48
Moderate Intellectual Disability	20.74	22.63	26.29	26.10	28.09	34.30	37.88
Severe Intellectual Disability	3.48	3.71	4.88	5.53	6.11	6.18	4.61
Multihandicapped	14.14	14.25	15.45	13.62	12.37	12.85	14.33

* Not all disaggregations are shown here.

Additional results that are generated from the **NCEXTEND1** administration include an individual achievement level (I–IV) and percentage of students in each achievement level. Scores are analyzed to reflect the number and percent of students who meet proficiency for each tested area.

6.2 The **NCEXTEND1** Scoring Process

Performance assessment task scores are recorded using a Assessor Rating Sheet as the student performs the required items. Each assessor independently records his/her observations of



student responses on separate, but identical, assessment rating forms. These scores are submitted using the **NCEXTEND1** Web Application. The **NCEXTEND1** Web Application automatically converts the submitted student responses to the summed number correct score. Table 10 shows the possible range of scores for the **NCEXTEND1** assessments.

Table 11. Range of Possible Scores

Mathematics	Reading	Writing	Science
0-30	0-30	0-14	0-24

6.3 Reliability

Reliability refers to the consistency of results from an assessment; reliability is increased when measurement error is decreased. In the context of performance assessment, reliability is typically thought of in regard to the reliability of raters and their scores (Dunbar, Koretz, & Hoover, 1991). In the simplest form, reliability of raters can be assessed through the use of percent agreement indices (i.e., inter-rater agreement). However, Marion and Pellegrino (2006) point out that the limited number of performance items and raters, in many cases, as well as the flexibility in items and proficiency targets that characterize alternate assessments makes it difficult to apply the same technical rules one would use in general assessments. They point out that using inter-rater agreement indices as reliability coefficients might be misleading. Frequently, complexity and authenticity of a performance task can lead to decreased reliability due to a number of factors: 1) number of dimensions being measured, 2) subjectivity of raters, and 3) granularity of performance items.

Although more challenging to assess in a performance framework, evaluating the reliability of students' scores is an essential piece of the assessment process. Therefore, efforts were made to ensure reliability of scores through a priori methods built into the assessment design, such as requiring two assessors to score the assessments and provision of test administration training prior to the testing window.

The extent to which different raters obtain the same result when using the same scoring rubric to score the same items is referred to as inter-rater agreement. For **NCEXTEND1**, every task is rated by two assessors. Each assessor scores students' performance on the items independently and then enters their scores into the Web Application. Because the scoring criteria for items on the **NCEXTEND1** are not multi-point rubric scores and they do not require subjective judgment by assessors of what an accurate response would be, it was expected that agreement statistics would be high. That is, each item is scored as correct or incorrect by the two independent assessors and the scoring criteria indicating the correct answer is provided in the test booklet that assessors use to administer the assessment. There is only one correct answer for each item; therefore, the only instances where disagreement between the assessors would occur would be in cases where a students' communication style might be unclear.



Results from data analyses supported our expectations. Table 11 shows the percent of perfect agreement across all grades and subjects. Table 12 shows the correlation between each assessor's ratings of student performance.

Table 12. Inter-rater Agreement by Grade and Subject

Grade	Mathematics	Reading	Writing	Science
3	92.00	92.35		
4	90.98	92.72	95.65	
5	91.55	93.53		93.06
6	91.48	93.54		
7	92.42	92.86	92.42	
8	91.88	93.85		94.78
10	89.17	91.50	93.33	90.91

Note. Blank cells indicate grades where the particular content area is not assessed.

Table 13. Correlation between Assessor's Ratings

Grade	Math	Reading	Science	Writing
3	0.99	0.99		
4	0.99	0.99		0.99
5	0.99	0.99	0.99	
6	0.99	0.99		
7	0.99	0.99		0.98
8	0.99	0.99	0.99	
10	0.98	0.99	0.99	0.98

Note. Blank cells indicate grades where the particular content area is not assessed.

6.4 Validity

Validity is defined as “the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores” (Messick, 1989). Construct validity is considered the umbrella for many other types of validity that deserve attention from any testing program. It is well-known that a trade-off exists between reliability and validity. Typically, the more authentic an assessment is, the less reliable it becomes.

6.4.1 Content Validity

Evidence of content validity begins with an explicit statement of the constructs or concepts being measured by the test. All items developed for the **NCEXTEND1** are done so to measure



the goals specified in the NCSCS Extended Content Standards. Content validity of items was established through involvement of specialists from multiple areas of expertise. Items were written by NCSU-TOPS and NCDPI staff who were experienced with students with disabilities in collaboration with NCSU-TOPS staff with expertise in the various content areas. In addition items were reviewed by teachers of students with disabilities to ensure that items were accessible for students at all symbolic access levels. Reviewers also included teachers familiar with the content addressed by the specific assessment in an attempt to ensure that items were aligned to content extensions. Teachers received training from TOPS staff on item review. It was determined that the test specifications and test blueprint would be developed using the goal percentages that aligned with the corresponding general multiple-choice assessments. The tables below provide the number of items aligned to goals for each **NCEXTEND1** assessment. Item development proceeded with targets for the percent of items aligned to each goal; however, due to the limited numbers of items on each assessment, actual percentages were not exactly equivalent to the targets.

Table 14. Mathematics Test Blueprints

Grade 3 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	50	20	10	20
Difficulty Breakdown				
Easy	2	1	1	1
Medium	3	1	1	1
Hard	2	1	0	1
Total Items	7	3	2	3
Grade 4 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	50	20	10	20
Difficulty Breakdown				
Easy	2	1	1	1
Medium	3	0	1	1
Hard	2	2	0	1
Total Items	7	3	2	3
Grade 5 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	20	50	10	20
Difficulty Breakdown				
Easy	1	2	1	1



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Medium	1	3	1	1
Hard	1	2	0	1
Total Items	3	7	2	3
Grade 6 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	25	40	10	25
Difficulty Breakdown				
Easy	1	2	1	1
Medium	1	3	1	1
Hard	1	2	0	1
Total Items	3	7	2	3
Grade 7 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	25	40	10	25
Difficulty Breakdown				
Easy	1	2	1	1
Medium	1	3	1	1
Hard	1	2	0	1
Total Items	3	7	2	3
Grade 8 Mathematics				
Goal	Goal 1	Goal 2/3	Goal 4	Goal 5
Target % focus	20	20	10	50
Difficulty Breakdown				
Easy	1	2	0	2
Medium	1	1	1	3
Hard	1	1	0	2
Total Items	3	4	1	7
Grade 8 Mathematics				
Goal	Goal 1	Goal 2	Goal 3	Goal 4
Target % focus	25	10	5	60
Difficulty Breakdown				
Easy	1	1	0	3
Medium	1	1	0	4
Hard	1	0	1	2
Total Items	3	2	1	9
Grade 10 Mathematics				
Goal	Goal 1	Goal 2	Goal 3	Goal 4



Target % focus	25	10	5	60
Difficulty Breakdown				
Easy	1	1	0	3
Medium	1	1	0	4
Hard	1	0	1	2
Total Items	3	2	1	9

Table 15. Reading Test Blueprints

Grade 3 Reading			
Goal	Goal	Goal	Goal
	1	2	3
Target % focus	30	40	30
Difficulty Breakdown			
Easy	2	2	1
Medium	2	2	2
Hard	1	2	1
Total Items	5	6	4
Grade 4 Reading			
Goal	Goal	Goal	Goal
	1	2	3
Target % focus	30	40	30
Difficulty Breakdown			
Easy	2	2	1
Medium	2	2	2
Hard	1	2	1
Total Items	5	6	4
Grade 5 Reading			
Goal	Goal	Goal	Goal
	1	2	3
Target % focus	30	40	30
Difficulty Breakdown			
Easy	2	2	1
Medium	2	2	2
Hard	1	2	1



Total Items	5	6	4			
Grade 6 Reading						
Goal	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
Target % focus	20	20	20	5	15	20
Difficulty Breakdown						
Easy	1	1	1	0	1	1
Medium	1	1	1	0	1	2
Hard	1	1	1	1	0	0
Total Items	3	3	3	1	2	3
Grade 7 Reading						
Goal	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
Target % focus	20	20	20	5	15	20
Difficulty Breakdown						
Easy	1	1	1	0	1	1
Medium	1	1	1	0	1	2
Hard	1	1	1	1	0	0
Total Items	3	3	3	1	2	3
Grade 8 Reading						
Goal	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
Target % focus	20	20	20	5	15	20
Difficulty Breakdown						
Easy	1	1	1	0	1	1
Medium	1	2	1	0	1	2
Hard	1	0	1	1	0	0
Total Items	3	3	3	1	2	3
Grade 10 Reading						
Goal Description	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
Target % focus	20	30	5	5	20	20
Difficulty Breakdown						
Easy	1	1	0	0	1	2
Medium	1	1	0	0	2	2
Hard	1	1	1	1	0	0
Total Items	3	3	1	1	3	4

Table 16. Writing Test Blueprints

Grade 4 Writing



Goal	Goal 4	Goal 5
Target % focus		
	Difficulty Breakdown	
Easy	2	1
Medium	1	1
Hard	1	1
Total Items	4	3
Grade 7 Writing		
Goal	Goal 3	Goal 6
Target % focus		
	Difficulty Breakdown	
Easy	1	1
Medium	1	2
Hard	1	1
Total Items	3	4
Grade 10 Writing		
Goal	Goal 2	Goal 6
Target % focus		
	Difficulty Breakdown	
Easy	0	2
Medium	2	1
Hard	1	1
Total Items	3	4

Table 17. Science Test Blueprints

Grade 5 Science					
Goal	Goal 1	Goal 2	Goal 3	Goal 4	
Target % focus	41	17	17	25	
	Difficulty Breakdown				
Easy	2	0	0	1	
Medium	2	1	1	2	
Hard	1	1	1	0	
Total Items	5	2	2	3	
Grade 8 Science					
Goal	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7
Target % focus	25	42	8	8	17
	Difficulty Breakdown				
Easy	2	0	0	0	2



Medium	1	3	1	0	0
Hard	0	2	0	1	0
Total Items	3	5	1	1	2
Grade 10 Science					
Goal	Goal 2	Goal 3	Goal 4	Goal 5	
Target % focus	8	25	42	25	
	Difficulty Breakdown				
Easy	0	1	2	1	
Medium	1	1	2	1	
Hard	0	2	0	1	
Total Items	1	4	4	3	

Alignment to NCSCS Extended Content Standards is also a crucial aspect of demonstrating content validity. An alignment study completed by independent researchers demonstrated alignment of the extended content standards to the general NCSCS as well as to national standards in the areas of reading, mathematics, and science.

An alignment study conducted by an external facilitator was completed in June 2009. Overall, the results showed generally positive findings relative to alignment. As with all alignment studies, issues in particular content areas and grades were noted.

6.4.2 Face Validity

Face validity refers to the extent to which the assessment appears to be a valid representation of students’ knowledge and skills. Face validity is understood to lack the technical quality necessary as evidence of valid assessment scores, but it does play a role in the acceptance of the assessment by stakeholders as a means of judging students’ knowledge and skills (Messick, 1989). Therefore, information is presented below regarding teacher judgments of the processes involved in **NCEXTEND1**, beginning with the training and ending with submission of scores using the Web Application. According to teacher responses, it appears that the assessment is valid for the purposes it was intended.

Table 18. Assessor Survey Questions and Response Percentages

Questions and Response Options	Percentages
What is your gender?	
▪ Female	91.24
▪ Male	8.58
▪ Non-Disclosed	0.19
What is your ethnicity?	
▪ American Indian	1.04
▪ Asian	0.82

▪ Black	15.85
▪ Hispanic	0.82
▪ Multi-Racial	0.75
▪ Other	0.97
▪ White	79.75
What is your primary academic teaching assignment?	
▪ English Language Arts	9.25
▪ Mathematics	3.80
▪ Other	85.83
▪ Science	0.71
▪ Social Studies	0.41
In what area/capacity/role do you currently teach?	
▪ Exceptional Children	84.19
▪ English as a Second Language	0.15
▪ Other	11.97
▪ General Education	3.69
Have you received training on teaching the grade-level specific North Carolina Standard Course of Study Extended Content Standard?	
▪ Yes	73.23
▪ No	26.77
Does the NCEXTEND1 Scoring Criteria clearly define the criteria for measuring student performance on individual items?	
▪ Yes	87.96
▪ No	12.04
Were the directions for the individual items clear, and was the language appropriate for the students?	
▪ Yes	61.11
▪ No	38.85
Were the NCDPI provided manipulatives adequate to administer the assessment properly for each student?	
▪ Yes	71.14
▪ No	28.86
If you adapted the NCDPI provided manipulatives, what accommodations were made?	
▪ Assistive Technology	3.09
▪ Brailled	0.56
▪ Enlarged text or pictures	6.26
▪ Not applicable	75.43
▪ Other	14.39
▪ Raised lines	0.22



Would the test administration have been easier to conduct if all NCDPI-provided manipulatives were one standard size?	
▪ Yes	47.56
▪ No	52.42
Was the packaging of the NCDPI-provided manipulative kits (all assessed content areas per grade level in one package) helpful?	
▪ Yes	95.24
▪ No	4.72
In your opinion, is the use of two individual assessors to observe and score student performance a valid method to evaluate what the student knows and can do?	
▪ Yes	89.45
▪ No	10.55
Does this assessment accurately measure student performance on the competencies specified in the goals and objectives of the North Carolina Standard Course of Study Extended Content Standards?	
▪ Yes	48.06
▪ No	24.65
▪ Somewhat	27.26
Does the information in the Administrative Guide and the Student Test Booklet provide adequate information to properly administer the assessment?	
▪ Yes	91.91
▪ No	8.09
Which setting did you use to submit information through the <i>NCEXTEND1</i> web application?	
▪ Classroom	56.94
▪ Computer Lab	9.13
▪ LEA Central Office	1.57
▪ School Office Area	22.74
▪ Other	9.92
On average, how much time did it take to complete this assessment per student, including the <i>NCEXTEND1</i> web application submission of scores?	
▪ 1 to 3 hours	48.47
▪ 4 to 6 hours	3.80
▪ 7 to 9 hours	.34
▪ Less than 1 hour	46.94
▪ More than 9 hours	0.45
Is the time it takes to complete this assessment per student reasonable?	
▪ Yes	92.47
▪ No	7.53



Did you have any difficulties using the <i>NCEXTEND1</i> web application?	
▪ Yes	8.80
▪ No	91.20
Was your training on the use of this assessment adequate?	
▪ Yes	87.02
▪ No	5.37
▪ Somewhat	7.57
How was the training delivered?	
▪ NCDPI	1.27
▪ LEA site	29.53
▪ RAC	2.80
▪ School site	62.30
▪ Other	4.10

6.4.3 Concurrent Validity

For *NCEXTEND1*, teachers' judgments of student achievement (i.e., assigned achievement levels) serve as one source of evidence of concurrent validity. The Pearson correlation coefficient is used to provide a measure of association between the students' actual achievement level and teachers' prediction of student achievement. The correlation coefficients for *NCEXTEND1* range from 0.28 to 0.41, indicating a small to moderate correlation between *NCEXTEND1* actual achievement levels and predicted achievement. Table 18 provides the Pearson correlation coefficients for the variables used to establish criterion-related validity for the *NCEXTEND1* alternate assessment. Anecdotal evidence has continually shown that teachers have a difficult time predicting student achievement for a population as heterogeneous as this.

Table 19. Correlation between Actual Achievement and Predicted Achievement

Grade	Content Area	Correlation
3	Mathematics	0.32
	Reading	0.35
4	Mathematics	0.31
	Reading	0.31
	Writing	0.37
5	Mathematics	0.39
	Reading	0.41
	Science	0.36
6	Mathematics	0.36
	Reading	0.38
7	Mathematics	0.38



	Reading	0.37
	Writing	0.36
8	Mathematics	0.37
	Reading	0.35
	Science	0.28
10	Mathematics	0.35
	Reading	0.41
	Science	0.35
	Writing	0.37

6.4.4 Consequential Validity

Consequential validity, according to Messick (1993), is the appraisal of the value implications of the assessment, both potential and actual. Although consequential validity is an often overlooked and controversial aspect of validation, it is still an important issue to address in order that the purpose of the assessment is understood and the assessment is not misused. Messick (1995) points out that “it is important to accrue evidence of positive consequences [improved teaching and learning] as well as evidence that adverse consequences are minimal” (p. 7). Table 19 displays a number of intended and unintended consequences that might result from this assessment. Portions of this list were compiled based on discussions of the **NCEXTEND1** advisory committee.

Table 20. Potential Intended and Unintended Consequences

Intended Consequences	Unintended Consequences
Results enforce higher grade-level academic expectations	Modification of items left to teachers’ discretion therefore possibility of items not being modified for all possible physical limitations of students
Assessment connected to NCSCS	First operational administration therefore assessment quality has yet to be judged based on actual data
Buy-in from teachers who commented on the quality of the items	<i>Decision Tree</i> confusing/students don’t get items matched to their entry level
Use of results immediately	Invalidation of assessment results possible due to adaptation of materials differing between teachers
NCSCS becomes more familiar to EC teachers	Wide range of skills and abilities of this population of students results in items not always functional or meaningful to very low



students

Age-appropriate materials used in instruction

Increased collaboration between EC and general education teachers in instruction and assessment items

EC teachers included in more content staff development opportunities

IEPs written with more academic focus

Impacting instruction throughout entire academic year due to fall delivery of items

Limit instruction to practicing items

More time on instruction of items and less time on life skills



Chapter Seven: *NCEXTEND1* Web Application

Many of the processing requirements of the ***NCEXTEND1*** assessment are handled by accessing and using an online web application. Use of this system is controlled by secure user accounts.

User accounts that have access to this system are created and managed by LEA test coordinators and/or school test coordinators by using another web application called NRegistration. User accounts are created for educators functioning as Assessor 1 and/or Assessor 2. Assessor 1 and Assessor 2 must be matched (see Figure 3) to a student before the ***NCEXTEND1*** process may begin for a student. Access to the ***NCEXTEND1*** web application must be done in a secure setting by an individual using their personally identifiable user account.

Figure 3. NRegistration Assessor Matching Screen

Student Report - RAC 1 Demo School										
		Back		Download for Printing						
Records 1 to 13 of 13										
NCEXTEND1 ID	Subject	Student ID	First Name ▲	Last Name	Assessors	SIQs	Assessment Status	Gender	Grade	
6141	NCEXTEND1 Grade				MATCHED	NO	IN PROGRESS	Female	10	
6141	NCEXTEND1 Grade				MATCHED	NO	CAN'T START	Female	10	
6141	NCEXTEND1 Grade				Match	NO	CAN'T START	Female	10	
6140	NCEXTEND1 Grade				MATCHED	NO	IN PROGRESS	Female	10	
6140	NCEXTEND1 Grade				MATCHED	NO	CAN'T START	Female	10	
6142	NCEXTEND1 Grade				MATCHED	NO	CAN'T START	Male	10	
6142	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6142	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6142	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6143	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6143	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6143	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	
6143	NCEXTEND1 Grade				Match	NO	CAN'T START	Male	10	

Records 1 to 13 of 13

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7.1 Internet Security, Security of Test Materials, and Web Application Content

The ***NCEXTEND1*** Web Application contains secure data and copyrighted content. Therefore, assessors, administrators, test coordinators, technology staff, and all users must follow rules and procedures that ensure online content is not made available to anyone for any other purpose than ***NCEXTEND1*** data processing. Locally stored offline content (cookies, cache, etc.) must be cleared or secured after accessing the ***NCEXTEND1*** Web Application so that malicious applications or users cannot gain access to secure testing materials.



7.2 Submitting *NCEXTEND1* Student Information and Results Using the Web Application

Assessors are required to submit final scoring information through the ***NCEXTEND1*** Web Application. Technical notes to guide assessors in this process are distributed prior to the deadline for submission of student scores during monthly RAC training. The technical notes include information related to submitting demographic information for each student being assessed using ***NCEXTEND1***, as well as information related to submitting the student assessment results as recorded on the Student Response Form.

7.3 Data Entry Progress Tracking

The ***NCEXTEND1*** web application also includes a feature to allow school, LEA, region, and state monitoring of progress of the data entry process. A progress report is available from the Reports menu for each of the data entry processes.

7.4 Score Reporting

Once scores are generated and standards are set, score reports and individual student reports are made available to LEA test coordinators through NCRegistration and the ***NCEXTEND1*** Web Application. See Chapter Five for more information on score reporting.



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Appendix A: Assessment Redesign Development Planning Meetings May 31, 2007

1. Addressed achievement level score ranges for **NCEXTEND1**.
2. Noted that there was significant skew to the score distribution. Specifically, large percentages of students scored 16/16 (i.e., Level IV). It was, in part, because of this factor that the achievement levels were changed.
3. Discussed possible reasons for such skewed results, including
 - a. Students misclassified (i.e., should be in **NCEXTEND2**)
 - i. Will address classifications
 - a. 2—Behaviorally-Emotionally Disabled
 - b. 3—Hearing Impaired
 - c. 6—Speech-Language Impaired
 - d. 7—Visually Impaired
 - e. 14—Deaf-Blind
 - b. Problem with assessment design (i.e., giving three tasks, teaching those tasks, assessing on two of them)
 - i. Possibility that some teachers may be teaching those tasks only, to the exclusion of other material
 - c. Others?
4. Discussed how to address these problems, specifically the need to flag students
 - a. Audit students misclassified
 - b. Audit children whose decision tree was completed within the past month
 - c. Examine assessment history of **NCEXTEND2** and **NCEXTEND1** for major changes—e.g., to see if any one of them weren't on the portfolio last year
5. Send ARS packets to schools of flagged students, and will do 10 onsite visits as follow-ups
6. Discussed Achievement Level Descriptors
 - a. Will leave them general
 - i. Writing to the list—e.g., English Language Arts (Writing)



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Areas of items that may be able to be standardized

Area/Benefit	Method to Standardize	Action Needed if adopted	People Involved
<p>Task Name</p> <p>If standardized it will assist in assuring tasks are correctly linked to extensions.</p>	<ul style="list-style-type: none"> ▪ Use the aspect of the Extension that the task addresses ▪ Supplied by the state for each task 	<ul style="list-style-type: none"> ▪ Create list of all possible tasks names for each competency in each content area ▪ Review each current task and change task name ▪ If task does not fit one the task names remove from pool or place where it should be 	<ul style="list-style-type: none"> ▪ /Content create task name list (mathematics is completed – need to check with content) ▪ Teachers to review task names and change all
<p>Assistive Technology</p> <p>We get may questions about what can or can't be used – even though it is in the manual. This bullet may or may not eliminate some of the questions</p>	<ul style="list-style-type: none"> ▪ Should each task include a bullet in the materials section and/or the Task Description? <ul style="list-style-type: none"> ▪ Assistive technology if needed ▪ Should each task have examples of possible AT applicable to the task? 	<ul style="list-style-type: none"> ▪ Develop general statement that will be put at the end of each materials list ▪ Or, have a new AT box on the task form that can have examples added to it as needed ▪ Should each task description end with “with or without assistive technology” 	<ul style="list-style-type: none"> ▪ Whoever to create the AT statement ▪ Ask programmers if we can add a new box to form ▪ Ask programmers if we can create statement that needs to be put in all “Materials Needed” box



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	<ul style="list-style-type: none">▪ This shows up more in presymbolic tasks		
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Area/Benefit	Method to Standardize	Action Needed if adopted	People Involved
<p>Materials Needed</p>	<ul style="list-style-type: none"> ▪ Are sometimes confusing or vague ex: character from story (should be 3 stories) ▪ distractors; unknown word ▪ one per trial~ for each trial ▪ weather charts, menus, books, (3) ▪ Appropriate adaptive equipment, if needed? ▪ Concrete hands on stuff ▪ Must distinguish between trial material and all materials 	<ul style="list-style-type: none"> ▪ Develop “Materials Needed” check list ▪ Recheck all Materials Needed lists and adjust as necessary ▪ Assistive Tech statement? <p>Standardize some words</p> <ul style="list-style-type: none"> ▪ book vs. selection ▪ picture/word card vs. word cards vs. word/pictures vs. words with picture supports ▪ book vs. picture book vs. book with pictures ▪ age appropriate vs. grade level text ▪ text vs. words 	<ul style="list-style-type: none"> ▪ Whoever to develop checklist ▪ Whoever to develop vocabulary list to be used ▪ Teachers to review/rewrite current items materials lists



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		<ul style="list-style-type: none"> ▪ writing implement vs. pencil ▪ manipulative vs. counters ▪ toy vs. ??? mock 	
<p>Assessment Instructions</p>	<ul style="list-style-type: none"> ▪ Step task directions - not explanations ▪ not complete sentences for the most part, succinct ▪ Ask student to.... ▪ Multiples need to be addressed repeat ex: 2 more times for a total of 3 sentences per trial... ▪ Score as correct if student independently (copy after ask student to...) ▪ Use same or different materials for each trial. <p>Standardize some words</p> <ul style="list-style-type: none"> ▪ Ask vs. tell 	<ul style="list-style-type: none"> ▪ Develop assessment instructions “rubric” ▪ Develop vocabulary list ▪ Check all current assessment instructions against this rubric 	<ul style="list-style-type: none"> ▪ Whoever to develop “rubric” ▪ Whoever to develop vocabulary list to be used ▪ Teachers to review/rewrite current items assessment instructions



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	<ul style="list-style-type: none">▪ His/her vs. her/his▪ Show vs. demonstrate▪ Read with teacher support vs. read vs teacher read▪ Character vs. person▪ Identify vs. indicate (EC has operational definition)▪ Write vs. indicate▪ Write vs. produce		
Prompts	Do we need to define “prompt” further on the item or in the manual?		
Special Instructions	Eliminate this box – writers were told not to use it but some did anyway – not sure we caught them all.		Teachers check to see all is clear or just have Sri eliminate box

Eliminate the word emerging in all tasks – we are testing for knowledge, understanding, or awareness – not emerging anything.



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Define Terms

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student's mode of communication (verbal, eye gaze, switch, picture communication, etc).

(Symbolic) Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with a understanding of properties (e.g., chooses metal materials that will attach to a magnet, acts to prevent exposure of electronic equipment to water, engages in safe practice such as turning off stove to prevent burns or fire, etc.). The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

(Early Symbolic) Demonstrate Knowledge: Demonstrating knowledge requires active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept (e.g., connect baby to mature animal, note that burner will boil water, put on coat when sees snow or ice outside, etc.)? Demonstrating knowledge implies acting with some knowledge of a concept (e.g., knowing to touch a baby animal gently, pointing to the sky when student sees a picture of the moon, noting that a plastic bottle goes in a recycle bin through eye gaze. etc.).

(Pre-Symbolic) Demonstrate Awareness: Demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?



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NCEXTEND1 Redesign Meeting

July 13, 2007

Attendees: Mildred Bazemore, Erin Bohner, Claire Greer, Jim Kroening, Melinda Taylor

- Discussion began with brainstorming about what went well with the 2006-07 administration and what issues needed to be addressed with improvements to the next edition

Good	Bad
Online delivery	Timing of assessment window (last six weeks)
Online data entry and storage	Scaling for writing (no odd scores)
Curriculum alignment	% of perfect scores (no variation)
Teachers buy-in greater than with portfolio	Cut scores (b/c of data)
Use of 2 assessors	Blueprint might need reworking
Use of local raters (those familiar w/ students)	Not doing auditing
Performance-based nature of assessment	Replacement of tasks
Scaling of test for reading & mathematics	Grade 3 Pretest (how do we handle)
Principal sign-off (but don't know if it worked, have done no audits)	Training (not a lot of training happened)
Having a test blueprint	Sometimes Tagger & NCRRegistration had issues but not often
Auditing (a good idea but not done)	Physical accessibility to tasks (matching using symbolic levels didn't help that)
Helpdesk	Eligibility criteria not being applied appropriately
Transfer students linking back to originally assigned tasks	Decision tree
LEAs printing tasks	Lack of standardization
Logistics (going online, signing up, etc.)	Technical properties
Test coordinators worked well w/ system	Symbolic levels (is this instruction or assessment)
Eligibility criteria	# of tasks (pool too large & not enough variation in types and difficulty of tasks)



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Testing irregularity necessary (but people didn't like it)	Student profiles
	Materials needed
	# of mis-administrations due to only one assessor rating
	Medical exemptions

- Need to look at what other states are doing
- Symbolic level discussion:
 - symbolic levels are instructional
 - using symbolic levels in assessment is flawed, putting measurement ahead of instruction
- Will call the new version of assessment **NCEXTEND1** Edition 2
- Edition 1 was built with too much of a focus on the lowest performing students, need enough tasks across the difficulty range so that higher performing students receive appropriate tasks (will also aid in getting distribution of scores more normalized)
- Target finish date for new edition is *September 15*
- Need to meet as frequently as possible (next meeting *July 24*)
- Could get rid of scenarios and decision tree altogether and use a modified version of NAAC's Learner Characteristics Inventory (see Dakota example)
- Will be an on demand assessment with no fall delivery of tasks
- Modifications for special populations will be an issue, must make sure the modification to the task measures the same construct at the same difficulty level (parallel and equivalent)
- Can we change from symbolic levels to difficulty levels (easy, medium, & hard)? Does that preclude certain students from ever reaching proficiency?
- Task pool should be reduced (see task breakdown although note totals at bottom are not accurate)



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NCEXTEND1 Redesign Meeting
August 2, 2007

In attendance: Mildred Bazemore, Melinda Taylor, Jim Kroening, Sheila Brown, Erin Bohner, Claire Greer, Tracy Riddle, and Pam Biggs

A. Redesign Issues

1. Blueprint vs. Numbers
2. Type of Assessment
 - a. On-demand
3. Assessment Window
 - a. No fall activities except for grade 3
 - b. Last 4 weeks
4. Redo scoring and scaling process
5. Reset standards
6. Auditing process
 - a. Random sample
 - b. Outliers from distribution
 - c. Questionable Eligibility/Participation
7. Replacement of tasks
 - a. NO
 - b. Deal with barriers up front
8. Student Placement Process (accessibility) – Revise
 - a. Eliminate decision tree as it stands
 - b. See notes later in minutes
9. Grade 3 Pretest
10. Improve training
 - a. Video/DVD
 - b. Go To Meetings/Webex
 - c. Flash stories
11. Eligibility Criteria
 - a. Tighten up, who we would not expect to see in this assessment
 - b. Would expect mental/intellectual disability
12. Lack of standardization
13. Technical Properties
14. Reduce Item Pool
 - a. 15 tasks with items within each task – for all subjects (R, M, W, S)
 - b. Pool breakout with difficulty level – 4 easy, 7 medium, 4 hard
 - c. Possibly do characteristic inventory in fall, get the results, and then make determination as to number of tasks in each difficulty level
15. Eliminate Student Profile
16. If only 1 assessor (why and what to do?)
 - a. Misadministration, invalidate scores



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- b. Per policy, student would have to be retested
17. Medical exceptions
- a. Review committee will see about being more lenient for lowest functioning students, will establish criteria for such decisions
18. Eliminate Assessment-Eligible Tasks
- B. Discussion on OSEP's GSEG (General Supervision Enhancement Grant)
- Agreement that it would be good to apply for this: \$1,000,000 over 3 years
 - Applications must be postmarked by August 23rd
 - Meeting on Thursday, August 9 to begin application
- C. Student Placement Process
- Modeled after Learning Characteristics Inventory
 - Title: **NCXTEND1** Student Access Survey
 - Goal: Design instrument that will facilitate the decision-making process for appropriate assignment of entry point on the assessment
 - Students who top off on all categories will generate warning/flag to LEA TC or school TC, possibly with letter to principal stating this assessment appears to be inappropriate for this student; IEP team should reconsider the eligibility criteria
 - Survey development done in separate file
 - For reading survey choices
 - bullets 1-3 would feed to hard tasks
 - bullet 4 to medium tasks
 - bullets 5-7 to easy tasks



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NCEXTEND1 Redesign Meeting
August 16, 2007

In attendance: Claire Greer, Tracy Riddle, Randy Craven, Erin Bohner, Pam Biggs, Melinda Taylor, Mildred Bazemore, Sheila Brown

NCEXTEND1 Assessment Eligibility:

1. Be enrolled in grade 3 according to the student information management system (e.g., SIM/NCWISE)
2. Have a significant cognitive disability (can include but is not limited to: moderate intellectual disabilities, severe intellectual disabilities, multiple disabilities, autism, deaf/blind)
 - NOTE: The list above contains examples of possible disabilities that students eligible for **NCEXTEND1** may have. However, due to the range of student abilities certain students would *NOT be eligible* for **NCEXTEND1**. These include some students with autism, hearing impairments, visual impairments, orthopedic impairments, or other health impairments and all students with specific learning disabilities.
 - Students with significant cognitive disabilities exhibit severe and pervasive delays in multiple areas of development and in adaptive behavior (e.g., mobility, communication, daily living skills, and self-care).
3. Have a current IEP
4. Be instructed in the NC Standard Course of Study Extended Content Standards in **all** assessed areas
5. Have an IEP that designates **NCEXTEND1** as the appropriate end-of-year assessment
- If Eligibility criteria for **NCEXTEND1** (yes/no checklist) not addressed with IEP team, it must be addressed at some point (either by test coordinator or assessor 1) prior to administering the assessment, perhaps at the point of the student access survey. Some note should be made that if one of the criteria are not met that scores may be invalidated. For instance: "If you have checked NO for any of the above, the **NCEXTEND1** may not be the appropriate assessment for this student. The IEP team may need to reconsider the eligibility criteria for the alternate assessment. If the assessment is



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deemed inappropriate after administration, scores may be invalidated.” (see checklist table)

- Is checklist going to be online? Should the note above show up or should it be programmed to pop up if NO is selected?
- Must complete eligibility criteria checklist in the online system
- Assessor 1 must complete student access survey



Appendix B: Item Writing Guidelines

Things to Consider to Make Test Items Accessible for EC Students

Vocabulary

Use the easiest, shortest words to convey the meaning.

Confusing names—unusual spelling

Use short, common names as much as possible. Pick short names from other cultures.

Complex sentences

Avoid these. Use simple sentences. Break ideas into their simplest units.

Unusual formats

Try to be as clear and straight forward as possible.

Consider how the words, charts and other visuals are arranged on the page.

Could the arrangement confuse someone? Do the visuals make sense? Is there enough space around visuals so that they are easy to keep separate?

Use of numbers and letters in responses

Be sure that it is very clear which numbers and letters are part of answers and which are just marking devices.

Specific things to consider:

- a) Try to avoid using the phrase “of the following.” The phrase can be troublesome for EC students especially deaf students. Try to use “Which _____ is ...” or “Which is...” rather than “Which of the following is...” or “Which of the following _____ is...”
- b) Try to avoid using the phrase “According to the chart...” A phrase such as “using the _____...” should be used to direct the student that a chart/graph should be used when answering a question.
- c) Try to refer to a chart/graph that is included in an item. For example, use “Bob made the chart below/above...” rather than “Bob made this chart...” or “Bob made a chart...”



LEVELS OF THINKING AND REASONING

In the North Carolina *Standard Course of Study* the levels of thinking and reasoning are classified in the following way. Verbs that are likely to be used in questions and directions related to these classifications are included below.

KNOWING

Defining problems: clarifying needs, discrepancies, or puzzling situations

Setting goals: establishing direction and purpose

Observing: obtaining information through one or more senses

Formulating questions: seeking new information through inquiry

Encoding: storing information in long-term memory

Recalling: retrieving information from long-term memory

Useful Verbs: list, name, label, recall, identify, match, choose

ORGANIZING

Arranging information so it can be used effectively

Comparing: noting similarities and differences between or among entities

Classifying: grouping and labeling entities on the basis of their attributes

Ordering: sequencing entities according to a given criterion

Representing: changing the form but not the substance of information

Useful Verbs: categorize, group, classify, compare, contrast

APPLYING

Demonstrating prior knowledge within a new situation. The task is to bring together the appropriate information, generalizations, or principles that are required to solve a problem.

Useful Verbs: apply, make, show, record, construct, demonstrate, illustrate

ANALYZING

Clarifying existing information by examining parts and relationships



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Identifying attributes and components: determining characteristics or parts of something

Identifying relationships and patterns: recognizing ways in which elements are related

Identifying main idea: identifying the central element; for example, the hierarchy of key ideas in a message or line of reasoning

Identifying errors: recognizing logical fallacies and other mistakes, and where possible, correcting them

Useful Verbs: outline, diagram, differentiate, analyze

GENERATING

Producing new information, meaning, or ideas

Inferring: going beyond available information to identify what reasonably may be true

Predicting: anticipating next events or the outcome of a situation

Elaborating: explaining by adding details, examples, or other relevant information

Useful Verbs: conclude, predict, explain, elaborate, infer

INTEGRATING

Connecting and combining information

Summarizing: combining information efficiently into a cohesive statement

Restructuring: changing existing knowledge structures to incorporate new information

Useful Verbs: combine, summarize, design, imagine, generalize

EVALUATING

Assessing the reasonableness and quality of ideas

Establishing criteria: setting standards for making judgments

Verifying: confirming the accuracy of claims

Useful Verbs: judge, evaluate, rate, verify, assess, define criteria



Bias in Selection of *NCEXTEND1* Task Materials

All groups of society should be portrayed accurately and fairly without reference to stereotypes or traditional roles regarding gender, age, race, ethnicity, religion, physical ability, or geographic setting. Presentations of cultural or ethnic differences should neither explicitly nor implicitly rely on stereotypes nor make moral judgments. All groups member should be portrayed as exhibiting a full range of emotions, occupations, activities, and roles across the range of community settings and socioeconomic classes. No one group should be characterized by any particular attribute or demographic characteristic.

The characterization of any group should not be at the expense of that group. Jargon, slang, and demeaning characterizations should not be used, and referenced to ethnicity, marital status, or gender should only be made when it is relevant to the context. For example, gender neutral terms should be used whenever possible.

In selecting stories, books, picture, or other printed material, an attempt to make the material more interesting, may introduce some local example about which only local people have knowledge. This may (or may not) give an edge to local people and introduce an element of bias into the task. This does not mean, however, that no local references should be made if such local references are a part of the curriculum. The test of bias is this: Is this reference to a cultural activity or geographic location something that is taught as part of the curriculum? If not, it should be examined carefully for potential bias.

When selecting materials for *NCEXTEND1* tasks consider the following:

- Does the material contain language that is not commonly used statewide or has different connotations in different parts of the state or in different cultural or gender groups?
- Does the material contain any local references that are not a part of the statewide curriculum?
- Does the material portray anyone in a stereotypical manner? (These could include activities, occupations, or emotions.)
- Does the material contain any demeaning or offensive material?
- Does the material have offensive, stereotyping, derogatory, or proselytizing religious references?
- Does the material assume that all students come from the same socioeconomic background? (e.g., a suburban home with two-car garage)
- Does the artwork or picture adequately reflect the diversity of the student population?



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What is Reading, Math, Writing, and Science for this Population?

- Consider the student's grade level
- Identify the standards
- Consider what activities typical peers do to learn these standards
- Make tasks accessible for this population
- For those with the more significant disabilities, identify meaningful partial participation

Meaningful

- Student will be able to gain enough understanding of activity to learn the target response
- Student has some prior knowledge/experience that gives the activity meaning
- Acquiring the response will build academic knowledge that will broaden the student's world
- Meaningful skills that are also functional are more likely to be maintained, but not all academic skills are immediately usable.

Functional

- Usable in daily life; something student will do in their daily routines currently or in the future
- Functional skills are not necessarily meaningful until student gains experience with them

Task Development

- Define the construct (general ed.)
- How general ed. Would teach it.
- Depth of knowledge (general ed.)
- Can this depth of knowledge be retained with creativity? (special ed – idea; general ed. validate).

Depth of Knowledge

- Level 1: Recall, observe, one step procedures, "right there" thinking
- Level 2: Comprehension, comparison, organization; classification
- Level 3: Reasoning, planning, conjecture, connect ideas, inference, prediction
- Level 4: Complex reasoning, planning and developing, multiple possible solutions, requires explanation and justification
- Level 0: Requires little/no thinking (someone else is making the response)

Work It Down

- Begin with content standard/extension at grade level; how typical students would show understanding; typical materials/activities
- Translate one level to symbolic
- Then translate to early symbolic
- Then translate to presymbolic



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Validation Check

- Will the task have meaning for the student?
- When looking at task in isolation, can you still identify the academic domain? Or is it no longer reading, math, science, or writing?
- Could a curriculum content expert link it back to the specific state standard?

Partial Participation

It is not necessary to wait for a child to master all the steps to an activity before he or she is included in the activity. Anyone who has ever had experience with a five year old knows the pride they feel when the child announces "I made cookies today!" when all they really did was crack the eggs into the bowl. This fact does not make the experience any less valuable to the child even though they played only a small part in the entire task.

Perhaps the concept of partial participation is best summed up by the following expression "no one can do everything, but everyone can do something!"



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Appendix C: Sample Assessor Rating Sheet

<i>NCEXTEND1</i> Reading Assessor Rating Sheet							
Grade	3	4	5	6	7	8	10
Student Name:							
Assessor Name:							
Beginning Date:							
<ul style="list-style-type: none"> • Fill in Yes if student independently responds correctly. • Fill in No if student does not independently respond correctly. 				Assessor Comments Assessor 1 Assessor 2 <i>Assessors are to comment on item quality, clarity of language, alignment to the NCSCS Extended Content Standards, formatting and graphics quality, bias, and special accommodations made for a particular item.</i>			
Item 1	<input type="radio"/> Yes	<input type="radio"/> No					
Item 2	<input type="radio"/> Yes	<input type="radio"/> No					
Item 3	<input type="radio"/> Yes	<input type="radio"/> No					
Item 4	<input type="radio"/> Yes	<input type="radio"/> No					
Item 5	<input type="radio"/> Yes	<input type="radio"/> No					
Item 6	<input type="radio"/> Yes	<input type="radio"/> No					
Item 7	<input type="radio"/> Yes	<input type="radio"/> No					
Item 8	<input type="radio"/> Yes	<input type="radio"/> No					
Item 9	<input type="radio"/> Yes	<input type="radio"/> No					
Item 10	<input type="radio"/> Yes	<input type="radio"/> No					
Item 11	<input type="radio"/> Yes	<input type="radio"/> No					
Item 12	<input type="radio"/> Yes	<input type="radio"/> No					
Item 13	<input type="radio"/> Yes	<input type="radio"/> No					
Item 14	<input type="radio"/> Yes	<input type="radio"/> No					
Item 15	<input type="radio"/> Yes	<input type="radio"/> No					
<i>I verify that this assessment is an accurate, valid, appropriate, complete, and true representation of the student's performance.</i>							
Assessor's Signature			Date	Principal's Signature			Date



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Appendix D: Standard Setting Report



Standard Setting Report for the North Carolina Extend1 Assessments

Draft-----Draft-----Draft

August 28, 2009

Susan L. Davis, Ph.D.
Chad W. Buckendahl, Ph.D.
Barbara S. Plake, Ph.D.
James C. Impara, Ph.D.
David Scrams, Ph.D.
Cristina Goodwin, B.S.



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Statement of Confidentiality

The information provided in this report is proprietary and confidential. It is meant to be used by NCDPI solely for the purpose of informing the standard setting process for the North Carolina Extend1 Assessments.

Acknowledgments

We would like to acknowledge several people who assisted us with the Standard Setting Workshop. Panelists of select educators make up the largest contingent of people whose work contributed to the outcome of the standard setting workshops. They participated in the activities that resulted in the cut score recommendations for each of the North Carolina Extend1 Assessments. The success of the workshops was due, in large part, to their efforts.

We also appreciate the assistance and support of Dr. Tammy Howard, Dr. Melinda Taylor, and Jim Kroening from the North Carolina Department of Public Instruction along with Abe Kline and Shelia Brown from North Carolina State University assisted in the preparation and execution of this workshop. Alpine would also like to thank Erin Bohner and Claire Greer from North Carolina State University for their assistance during the workshop.



Purpose and Overview

The purpose of this report is to document the procedures and analyses undertaken to assist the North Carolina Department of Public Instruction (NCDPI) in recommending achievement levels descriptors and cut scores for the North Carolina Extend1 Assessments. The included assessments were for Reading (grades Pre3-8 and 10), Mathematics (grades Pre3-8 and 10), Science (grades 5, 8, and 10), and Writing (grade 10).

This report summarizes the procedures and the results of standard setting workshops conducted August 10-12, 2009. The first part of the results is the recommended Achievement Level Descriptors drafted by the standard setting panelists. These descriptors illustrate the expected knowledge, skills, and abilities of students by achievement level, grade level, and subject area. The second set of results includes the recommended cut scores for each assessment within the Extend1 program.



Standard Setting Report for the Extend1 Assessments

North Carolina Extend1 Assessments

The North Carolina Extend1 program encompasses the alternate assessments for students with the most severe cognitive and physical disabilities. The grade level curriculum and test content are built to represent the progression and continual development of knowledge and skills across the successive grade levels. Each Extend1 assessment is aligned with the NCDPI content goals and curriculum. The results of the Extend1 assessments are used to evaluate students' abilities and classify them into one of four achievement levels (i.e., Level I, II, III, and IV).

Standard Setting Workshop

The standard setting workshop for the North Carolina Extend1 assessments was conducted August 10-12, 2009 in Raleigh, NC. There were two goals of this workshop. The first goal was to produce a set of recommended achievement level descriptors that summarized the expected knowledge, skills and abilities of students at each achievement level. The second goal was to elicit recommended cut scores that define the expected performance for students within each achievement level consistent with the achievement level descriptors.

The subsequent sections of this report describe the procedures used to accomplish each of these goals. Also included in this report is a full summary of the results produced from the standard setting workshops. These results should be considered as recommendations to NCDPI that will share these with the State Board of Education to set the final achievement level descriptors and cut scores for each achievement level.

Methods and Procedures

Workshop Panelists

Prior to the workshop, NCDPI recruited panelists to participate in each grade level panel. Each grade level panel included 17-20 content experts from across the state (Jaeger, 1991; Raymond & Reid, 2001). Each panel represented substantial experience and included Extend1 teachers, General Education teachers, ESL teachers, and administrators. The experience and qualifications of the panelists is noted in Table 1 along with their current assignment.



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Table 1. Experience and qualifications of each grade-level panel

Panel	Number of Panelists	Degree			Average Years of Experience
		Bachelors	Masters	Doctorate	
Elementary	20	8	12	0	15.1
Middle	17	6	11	0	17.8
High School	19	8	9	2	16.5

Panel	Extend1	General	ESL	Administrator
		Education		
Elementary	8	6	3	3
Middle	7	6	3	1
High School	8	6	3	2

Workshop Orientation

Within each grade level panel, NCDPI identified table leaders who were to serve in leadership roles within tables of 3 to 5 panelists during the first day of the workshop. On the first day of the workshop, the table leaders participated in a brief table leader orientation, in advance of the full group orientation, where they received a description of the process and their role as facilitator and spokesperson for their respective tables, particularly for cross-grade activities. Following the table leader orientation, a general orientation was held for all panelists. Tammy Howard from NCDPI welcomed the group. Susan Davis from Alpine Testing Solutions provided an orientation that covered the purpose of the workshop, the goals of the workshop, and the processes that would be used to accomplish each goal. Following the orientation, panelists worked within smaller grade-span panels for the remainder of the workshop.

Achievement Level Descriptors

To begin creating the achievement level descriptors, panelists were divided into their table groups. Each group was assigned one or two sets of achievement level descriptors to craft. As a group, they listed ideas for each achievement level of the types of things a student at that level could do related to the standards for that grade/course. The draft achievement level descriptors were then transferred to an electronic format so they could be shared with each grade level panel. Within each panel, the achievement level descriptors were reviewed for clarity and continuity across grade levels and subject areas.

At the end of the day, representatives from each grade-level panel met to compare their achievement level descriptors across grade levels within a subject area. The purpose of this cross-grade review was to ensure the achievement level descriptors represented a vertical

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articulation of the achievement level descriptors in the context of the curriculum and continual development of reading comprehension skills and abilities. As a final step in drafting the descriptors, the panelists were provided an opportunity to independently review and make comments on the achievement level descriptors that came from their grade-span panel. The workshop facilitators collected these comments and consolidated them after the workshop to finalize the achievement level descriptors.

Standard Setting

The recommended range of cut scores is based on the Impara and Plake (1997) modification of the Angoff (1971) method. In this process, panelists are presented with the assessment just as students would see the assessment and are asked to make item-level judgments. For each item, they are asked to imagine the “target student” and make their best judgment as to whether or not they believe this student would answer the item correctly. In this application, there were three groups of target students: the student that is barely level II, the student that is barely level III and barely level IV. By focusing on the transition points between the achievement levels (e.g., barely level III differentiates between levels II and III), panelists demonstrate their expectations for students who represent the minimum level of knowledge and skills at each of the upper achievement levels. These expectations are then used to represent the minimum score required for each of the upper achievement levels (i.e., the cut scores).

Panelists recorded these judgments on specially designed rating forms which the facilitator collected and used to compute the panel-level statistics. Rating forms were returned to panelists which included their recommended cut scores. The facilitator also shared with the panelists the group median cut scores, the range of cut scores across the panel, the estimated impact if the median cut scores were used (i.e., what percent of students would be classified in each achievement level) and the percentage of students who answer each question correctly during the previous administration year (i.e. p-values). After explaining this feedback, the facilitator instructed the panelists to review their first round of ratings and make any modifications they felt necessary in their second round of ratings. The second round ratings were used to compute the final recommended cut scores.

The final activity for the panelists was the completion of an evaluation form designed to measure the level confidence in the standard setting activities and their cut score recommendations. After finishing their evaluation forms, materials were collected. After the evaluations were completed, each participant was provided with a certificate of participation and the respective workshop was concluded.

Results

Achievement Level Descriptors

The draft achievement level descriptors are included in Appendix A and are submitted to NCDPI as recommended descriptors. It is our recommendation that NCDPI and the Technical Outreach for Public Schools (TOPS) team at NC State collaboratively review these descriptors and make any modifications necessary.



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Standard Setting

The standard setting included two rounds of judgments. The full results are included in Appendix B. The summary results for each grade level are presented in Tables 2-5 for Reading, Mathematics, Science, and Writing assessments, respectively. Each table includes the median recommended cut score for each Level, the impact if the median cut scores were implemented (percent of students in each achievement level), and a range of cut scores defined by the median plus and minus two standard errors is included. The standard error is a measure of the variability in the recommended cut scores. Because the only plausible score points (assuming 100% rater agreement) are even numbers, the recommended cut score ranges were estimated using the standard errors and then rounded on each end to the closest even score point. Therefore, some ranges are not symmetrical around the recommend cut score. Selecting a cut score within this range would be seen as reflective of the results of the process. The impact of the median recommended cut scores is shown graphically for each content area in Figures 1-4. The impact by score (percent of students who scored at a particular scale score and above) is listed in Appendix C. From these tables one can estimate the impact of any set of proposed cut scores.

Table 2. Summary of Reading Standard Setting Results

Grade		Level I	Level II	Level III	Level IV
Pre3	Median		2	4	8
	Impact	13%	15%	36%	36%
	Median \pm 2 SE*				
3	Median		8	14	22
	Impact	10%	20%	36%	34%
	Median \pm 2 SE		8-9	12-16	22-23
4	Median		10	16	24
	Impact	13%	20%	32%	35%
	Median \pm 2 SE		8-12	14-18	22-26
5	Median		10	18	22
	Impact	12%	26%	19%	43%
	Median \pm 2 SE		8-12	16-20	22**
6	Median		10	16	22
	Impact	12%	20%	24%	44%
	Median \pm 2 SE		8-12	14-18	20-24
7	Median		8	16	22
	Impact	7%	20%	27%	46%
	Median \pm 2 SE		6-10	14-18	20-24
8	Median		10	16	24
	Impact	13%	20%	33%	34%



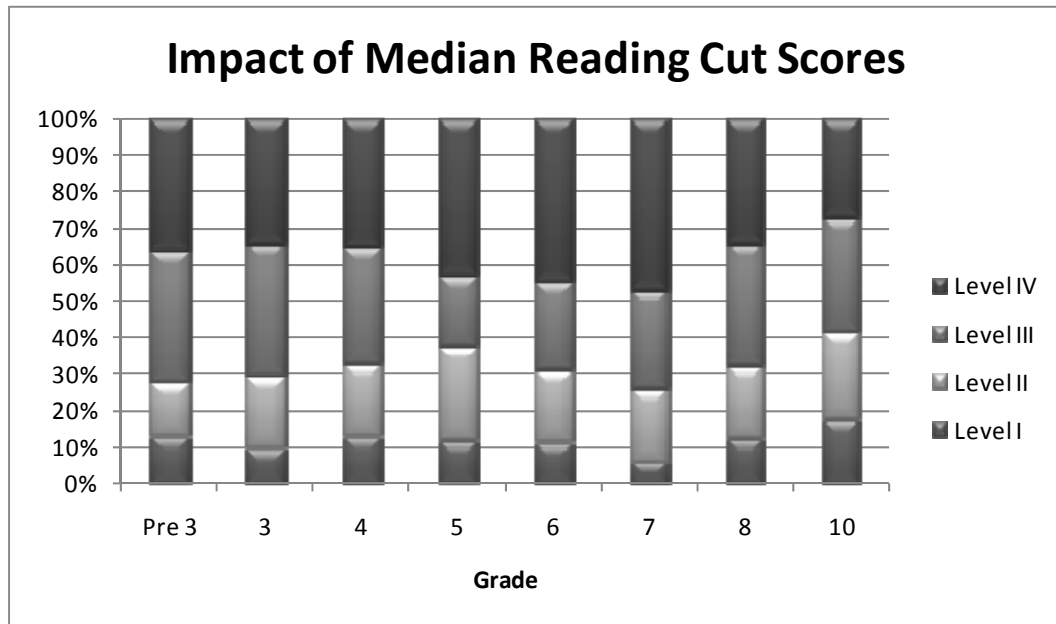
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Median \pm 2 SE		8-12	14-18	22-26	
Median		10	18	26	
10	Impact	18%	24%	31%	27%
Median \pm 2 SE		8-12	16-20	24-28	

* Range of cut scores based on standard errors not reported for Pre3 due to the narrow range of possible scores

**Because the value of 2SE represented less than one observable score point, there is no recommended range

Figure 1. Impact of median Reading recommended cut scores



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Table 3. Summary of Mathematics Standard Setting Results

Grade		Level I	Level II	Level III	Level IV
Pre3	Median		2	6	8
	Impact	13%	35%	24%	28%
	Median \pm 2 SE*				
3	Median		8	16	24
	Impact	10%	19%	39%	32%
	Median \pm 2 SE		6-10	14-18	22-26
4	Median		6	14	20
	Impact	10%	30%	31%	29%
	Median \pm 2 SE		6**	12-16	18-22
5	Median		8	18	24
	Impact	9%	39%	26%	26%
	Median \pm 2 SE		8**	16-20	22-26
6	Median		10	16	22
	Impact	16%	22%	27%	35%
	Median \pm 2 SE		10**	14-18	22**
7	Median		8	16	24
	Impact	8%	23%	35%	34%
	Median \pm 2 SE		6-10	14-18	22-26
8	Median		6	14	20
	Impact	7%	36%	30%	27%
	Median \pm 2 SE		6**	12-16	18-22
10	Median		6	16	26
	Impact	11%	51%	31%	7%
	Median \pm 2 SE		4-8	14-18	24-28

* Range of cut scores based on standard errors not reported for Pre3 due to the narrow range of possible scores

**Because the value of 2SE represented less than one observable score point, there is no recommended range

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Figure 2. Impact of median Mathematics recommended cut scores

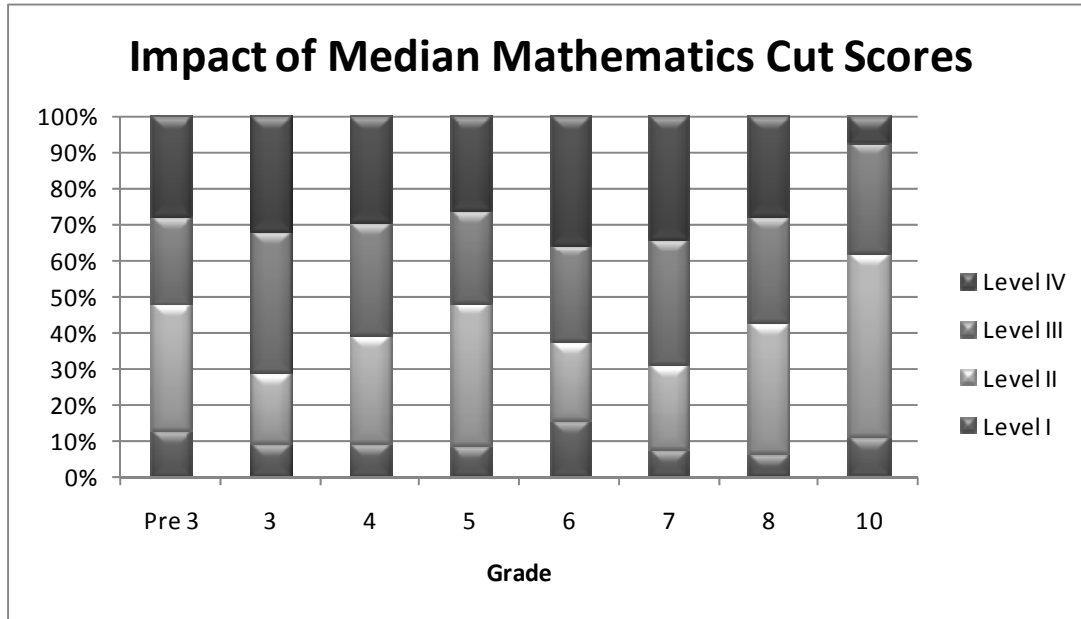


Table 4. Summary of Science Standard Setting Results

Grade		Level I	Level II	Level III	Level IV
5	Median		6	14	18
	Impact	8%	34%	26%	32%
	Median \pm 2 SE		6*	12-16	16-20
8	Median		6	12	16
	Impact	11%	37%	23%	29%
	Median \pm 2 SE		6*	12*	16*
10	Median		8	16	22
	Impact	18%	34%	34%	14%
	Median \pm 2 SE		6-10	14-18	20-24

**Because the value of 2SE represented less than one score point, there is no recommended range

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Figure 3. Impact of Median Science Cut Scores

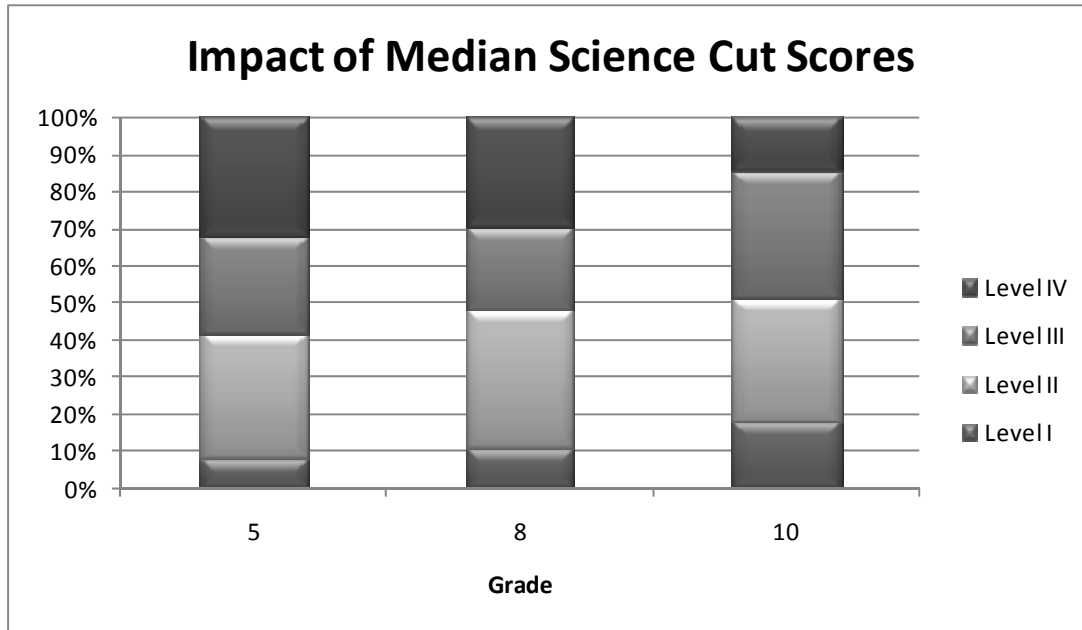


Table 5. Summary of Writing Standard Setting Results

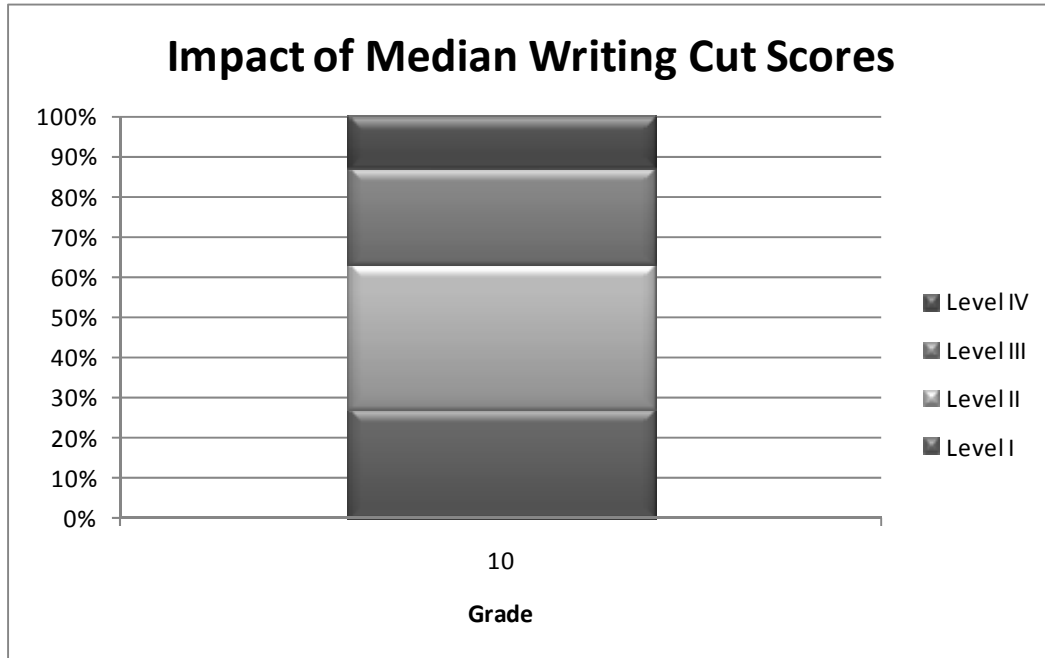
Grade		Level I	Level II	Level III	Level IV
	Median		4	8	12
10	Impact	27%	36%	24%	13%
	Median + 2 SE		4*	6-10	10-14

**Because the value of 2SE represented less than one observable score point, there is no recommended range



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Figure 4. Impact of Median Writing Cut Scores



Evaluation

Each panelist responded to a series of evaluation questions about the various components of the workshop. The median response for each panel for each evaluation question is shown in Table 6. The overall results suggest that each panel felt the workshop was very successful and felt the workshop was very successful in arriving at appropriate recommended cut scores. In addition to the closed-ended questions, panelists were allowed to provide comments about the workshop. These comments are included in Appendix D along with the full evaluation results. One specific comment that came from several panelists was that additional review was needed of the ALDs. In response to this, the facilitation team collected and addressed comments from the panelists after the workshop to the draft ALDs.

Table 6. Median evaluation results by grade level

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	Grade-Level Panel		
	Elementary	Middle	High School
Successfulness of training [6=Very Successful to 1= Very Unsuccessful]			
1a. Successfulness of orientation	5	6	5
1b. Successfulness of training on Yes/No method	6	6	5
1c. Successfulness of description of target students	5	5	4
1d. Successfulness of practice with method	6	5	5
1e. Successfulness of interpretation of feedback	6	6	5
1f. Successfulness of overall training	5	6	5



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Table 6. Median evaluation results by grade level (Continued)

Time allocated to training [6= Totally Adequate to 1=Totally Inadequate]			
2a. Time – orientation	6	6	6
2b. Time – training on Yes/No method	6	6	5
2c. Time – description of target students	5	5	5
2d. Time – practice with method	6	6	5
2e. Time – interpretation of feedback	6	6	5
2f. Time – Overall training	6	6	5
Round One Yes/No Judgments			
3. Confidence in predictions [4=Confident to 1=Not at all confident]	3	3	4
4. Time for predictions [4=More than enough time to 1=More time needed]	4	4	4
Round Two Yes/No Judgments			
5. Confidence in predictions [4=Confident to 1=Not at all Confident]	4	4	4
6. Time for predictions [4=More than enough time to 1=More time needed]	4	4	4
Overall workshop			
7. Confidence in cut scores [4=Confident to 1=Not at all Confident]	3	4	3
8. Most useful feedback data (<i>mode reported</i>) [4=Panel summary, 3=Group discussions, 2=Impact, 1=P-values]	4	4	4
9. Least useful feedback data (<i>mode reported</i>) [4=Panel summary, 3=Group discussions, 2=Impact 1,=P-values]	2	2	2
10. Overall success [4=Very Successful to 1= Very Unsuccessful]	3	4	3
11. Overall organization [4=Very Organized to 1=Very Unorganized]	4	4	4



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Conclusions

The panelists' recommendations to NCDPI and North Carolina's State Board of Education include a set of achievement level descriptors for each grade and a set of cut scores that define the performance expectations for each achievement level. We first recommend that NCDPI work with their colleagues at TOPS (NC State) to review and evaluate the achievement level descriptors after the final cut scores are set. Second, NCDPI and the State Board of Education are encouraged to consider the recommended cut scores and the positive perceptions by the panelists about their experiences and the results of the standard setting workshops.

It is important to highlight the critical elements that provide validity evidence for the results of this standard setting. Kane's (1994, 2001) framework for standard setting validity evidence identifies three elements of validity evidence for standard settings: procedural, internal, and external. Procedural validity evidence for these studies can be documented through the careful selection of representative, qualified panelists, use of a published standard setting method, completing the study in a systematic fashion, and collecting evaluation data that indicates the panelists felt they were confident in the cut score recommendations they made. Internal validity evidence suggested that panelists had similar expectations for the performance of the target students. This type of evidence is provided by the reasonable standard errors in the recommended cut scores for the second round of the standard setting process. The final type of validity evidence, external, can be provided by triangulation with results from some other estimation of appropriate cut scores from outside the current standard setting process and consideration of other factors that can influence the final policy. One way in which this could be accomplished is by conducting a second standard setting process such as contrasting groups from which one could triangulate the results of this standard setting process.



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Appendix A: Recommended Achievement Level Descriptors

Grade Pre3 Reading ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify a letter in their name. They can also identify the correct symbol, picture, or other representation for a particular word or activity (e.g. picture of a dog) and identify a period (the dot) at the end of a sentence.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify a book from a non-book (e.g., magazine, newspaper) and identify the cover of a book. In addition, they are able to match the letters in their first name.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to use the picture on the front of the book to select which book is about a given topic and identify an object on a page. In addition, students can recognize their name in print by matching their picture with their name.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify the main character in a selection, an event in a selection, and community signs (e.g., stop signs). Based on the cover of the book, they can choose what the book may be about and they are able to identify different text genres (e.g., magazine, newspaper, book). In addition, they are able to recognize their name or a given word within text through matching, and identify objects outside of the text (related to the text, text to world; e.g., ball in text, ball in classroom)



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Grade 3 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify a book from a non-book (e.g., magazine, newspaper) and identify the cover of a book. They are also able to match the letters in their first name.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to use the picture on the front of the book to select which book is about a given topic and identify an object on a page. In addition, students can recognize their name in print by matching their picture with their name and match some pictures with a selection.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify the main character in a selection, an event in a selection, and community signs (e.g., stop signs). Based on the cover of the book, they can choose what the book may be about and they are able to identify different text genres (e.g., magazine, newspaper, book). In addition, they are able to recognize their name or a given word within text through matching, and identify objects outside of the text (related to the text, text to world; e.g., ball in text, ball in classroom). They are also able to answer simple questions based on the text (e.g., “wh” questions).

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations demonstrate the ability to identify personal information (e.g., last name, address), can choose their name from a group of names and even write their name. They can choose an appropriate reference tool to use to find information (e.g., dictionary, phone book, cookbook) and make connections and differentiate between two selections. Students can also sequence up to three events.



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Grade 4 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to use the picture on the front of the book to select which book is about a given topic and identify an object on a page. In addition, students can recognize their name in print by matching their picture with their name and can recognize some letters versus non-letters (e.g., symbols). They can identify some signs symbols from their environment (e.g., bathroom sign; men’s vs. women’s sign)

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to match a picture with a common word that is read aloud and match beginning sounds with letters or objects (e.g., “b”/ball) as a clue for word recognition. They can identify the main character in a selection and answer simple questions based on the selection (“wh” questions). Students can also give one name for an object (e.g., dog).

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to identify characters, action, and the setting in a selection. They can also predict what a story will be about from the title. Students can identify more than one name for a given object (e.g., pet, dog) and write their name.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations are able to identify the main idea and sequence in a selection. They are able to predict what might happen next in the story and answer “wh” questions related to the story (with some more complex thinking). Students are beginning to make some connections from a selection to either other texts or personal information. At this level, students can consistently match a picture with a common word (e.g., umbrella).



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Grade 5 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to match a picture with a common word that is read aloud and can recognize and name some letters (e.g., A, B, C) and some sounds. They can also recognize their first name.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to identify characters, action, setting, beginning, and end of a selection. They can also predict what a story will be about from the title. They are able to make some personal connections with a story or selection when read aloud.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to identify the main idea and sequence in a selection. They are able to predict what might happen next in a story. Students are beginning to make some personal connections with oral language, media and technology. At this level, students can consistently match a picture with a common word (e.g., umbrella) and can sound out some decodable words.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations are able to sound out most one syllable words and can consistently match a picture with a word. They are able to respond to questions from a selection when read aloud (e.g, main idea, characters, setting) and make predictions. Students can make connections (e.g., text-to-text, text-to-world) with oral language, media, and technology, and written language and can use text as a reference to find information or help with a task



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Grade 6 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate some knowledge of a variety of texts and a limited interaction of exploring materials and making basic predictions. They are also extending their vocabulary knowledge.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate some understanding of text (pictures, words), can identify characters, and are beginning to make connections to texts. They understand the concept of literary devices and are building on their previously known vocabulary.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate and understanding of some texts that are read, heard, or viewed by providing consistent correct responses to simple questions related to text. They are able to make some connections within and between texts and consistently demonstrate literacy skills as they relate to self.

Level IV

“Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations are able to comprehend texts independently as they generate correct responses to questions related to text (e.g., characters, ideas, concepts, and experiences in text). They are also able to determine the meaning of new vocabulary in context



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Grade 7 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to demonstrate a minimal understanding of text (pictures, words) as they relate text to self and community and demonstrate an awareness of learning/interests. They are extending their vocabulary and have knowledge of a variety of texts. These students may demonstrate some interaction of exploring materials and make basic predictions.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to demonstrate some understanding of reading skills as they relate to self and community and are demonstrating emerging connections to texts. They understand the concepts of literary devices and are building on previously known vocabulary.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to consistently demonstrate reading skills as they relate to self and community. They demonstrate an understanding of texts as they explore, interact with, and/or demonstrate comprehension of informational materials that are read, heard, or viewed. Comprehension of material by students identifying connections within and between texts and providing consistent correct responses to questions about text

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent comprehension of text independently by consistently providing correct responses to questions about text (characters, ideas, concepts, and experiences) and making connections between text and self. They are also able to demonstrate understanding of material containing opinion. Students at this level may be able to determine new vocabulary in context.



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Grade 8 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate an awareness of learning/ interests and some understanding of reading skills as they relate to self and personal world. They may demonstrate a limited interaction of exploring materials and making basic predictions and are extending their vocabulary knowledge.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to consistently demonstrate reading skills as they relate to self and community. They demonstrate an understanding of texts as they explore, interact with, and/or demonstrate comprehension of informational materials that are read, heard, or viewed. They can show comprehension of text by identifying connections within and between texts and providing correct responses to questions about text.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent comprehension of text independently by consistently providing correct responses to questions about text (characters, ideas, concepts, and experiences) and making connections between text and self. They are also able to demonstrate understanding of material containing opinion. Students at this level may be able to determine new vocabulary in context.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations are able to interpret purpose, audience, and context independently for a given text or selection and differentiate between genres such as fiction and non-fiction. They can apply basic conventions of grammar and language usage in written/spoken expression to comprehend text and create informational products. Students can identify a given sound/stimulus and pick an object or objects with corresponding sound/stimulus



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Grade 10 Reading ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to demonstrate an understanding of texts as they explore, interact with, and/or demonstrate comprehension of informational materials that are read, heard, or viewed and differentiate between basic symbols. They can show comprehension of text by identifying connections within and between texts and providing correct responses to questions about text.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate comprehension of text by creating informational products that demonstrates comprehension of print and non-print/pictorial texts. They are also able to demonstrate understanding of material containing opinion. Students at this level may be able to determine the meaning of new vocabulary in context.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations are able to interpret purpose, audience, and context independently for a given text or selection and differentiate between genres such as fiction and non-fiction. They can apply basic conventions of grammar and language usage in written/spoken expression to comprehend text and create informational products. Students can identify a given sound/stimulus and pick and object or objects with corresponding sound/stimulus

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations demonstrate an understanding of conventional written expression by interpreting and evaluating purpose, audience, and context, inferring, generalizing, and drawing conclusions. They are also able to extend their understanding by creating products that exemplify specific types of printed and non-printed text. These students are able to make generalizations and connections between their experiences, literature, language or ideas and are consistently using context clues to determine meaning of new vocabulary.



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Grade Pre3 Mathematics ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They inconsistently recognize a number from a non-number, distinguish a circle from another shape, identify basic shapes, and differentiate between large and small, more and less.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They recognize a number from a non-number, copy simple AB patterns, and demonstrate one-to-one correspondence with objects.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent understanding of the subject area. They identify basic shapes when shown an example, recognize a number from a non-number, identify one-to-one correspondence using objects, recognize basic AB patterns, and recognize same numbers or shapes.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their understanding of the subject area. They distinguish among basic plane figures, identify basic shapes, recognize a number represented in different forms, differentiate between larger and smaller objects, apply rote counting principles, display data using concrete, visual representations, and recognize one-to-one correspondence with objects and numerals.



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Grade 3 Math ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They inconsistently recognize numbers from non-numbers, identify a single shape, and differentiate between concepts of large and small, more and less.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They recognize numbers from non-numbers, recognize one-to-one correspondence between objects and numerals, and differentiate between larger and smaller, and more and less objects. Students are also beginning to recognize rote counting principles.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They understand one-to-one correspondence with numbers greater than 1, recognize equal groups of objects, recognize groups as having more or less, make basic generalizations from bar graphs, demonstrate rote counting of single digit numbers up to 10, recognize sequence of three or four numbers, recognize basic 2-D figures, find similar shapes, and add sets of objects. Students are also beginning to sequence one digit numbers.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their understanding of the subject area. They represent and manipulate numbers in number sets, follow basic level maps, extend basic AB patterns to identify what comes next, demonstrate rote counting of single digit numbers, recognize sequence of single digit numbers, use numerals to add sets, identify counting order, and add small numbers.



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Grade 4 Math ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They inconsistently match numbers with pictures depicting sets of objects and group equal sets using manipulatives or pictures. Students recognize some polygons, solve simple mathematics problems using one strategy, recognize one-to-one correspondence between number and an object, and can create sets of numbers.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They inconsistently represent numbers in different forms by matching numbers with pictures and group numbers in equal sets using manipulatives or pictures. Students recognize single digit numbers, identify simple part-whole relationships using tangible items, and solve simple mathematics problems. They demonstrate and model simple patterns using hands-on materials, recognize polygons, and are beginning to understand perimeter.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They represent numbers in different forms by matching numbers with pictures, group numbers in equal sets by using manipulatives or pictures, and demonstrate and model patterns using hands-on materials. Students collect and display data to solve problems using basic graphs. They recognize perimeter and find the perimeter of an object when given four sides.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They represent numbers in different forms by counting their manipulatives to match numbers and group numbers by placing objects into sets. Students identify and compare part-whole relationships using tangible items, solve addition problems using one strategy, and demonstrate and model patterns using hands-on materials. They

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collect, organize, and display data to solve problems using graphs. Students find the perimeter of a rectangle when given two sides and solve some problems with area.



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Grade 5 Math ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They inconsistently represent numbers in different forms by matching numbers with pictures and group numbers in equal sets using manipulatives or pictures. Students recognize single digit numbers, identify simple part-whole relationships using tangible items, and solve simple mathematics problems. They model simple patterns using hands-on materials, recognize polygons, and are beginning to understand perimeter.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They recognize rational numbers, represent numbers in different forms by matching numbers with pictures, group numbers in equal sets by using manipulatives or pictures, and demonstrate and model patterns using hands-on materials. Students collect and display data to solve problems using basic graphs. They recognize perimeter and find the perimeter of an object when given four sides. Students are also able to identify simple AB patterns and identify simple number sequences.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They demonstrate number sense for rational numbers and represent numbers using at least one strategy. Students solve basic addition problems using visual aids and appropriate technology, multiply using arrays of objects, and identify angles using a single tool. They identify and represent polygons using manipulative shapes and identify parallel and perpendicular lines using pictorial images. Students collect, organize, and display data to solve problems using graphs. They can also repeat AB patterns.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They represent number sense and



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numbers using more than one strategy. Students solve basic addition and subtraction problems using visual aids and appropriate technology and multiply using basic facts. They identify angles using multiple tools and right angles using manipulatives. Students collect, organize, display, and interpret data using graphs to solve problems. They can also extend AB patterns.



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Grade 6 Mathematics ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They recognize rational numbers, represent numbers in different forms by matching numbers with pictures, group numbers in equal sets by using manipulatives or pictures, and demonstrate and model patterns using hands-on materials. Students collect and display data to solve problems using basic graphs. They recognize perimeter and find the perimeter of an object when given four sides. Students are also able to identify simple AB patterns and identify simple number sequences.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They demonstrate number sense for rational numbers and represent numbers using at least one strategy. Students solve basic addition problems using visual aids and appropriate technology and identify angles using a single tool. They identify basic geometric figures using manipulative shapes. Students collect, organize, and display data to solve problems using graphs. They can also repeat AB patterns.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They represent number sense and numbers using more than one strategy. Students solve basic addition and subtraction problems using visual aids and appropriate technology and multiply using basic facts. They identify basic geometric shapes and relationships, and identify angles using multiple tools and right angles using manipulatives. Students collect, organize, display, and interpret data using graphs to solve problems. They can also extend AB patterns, identify measurement tools.

Level IV

“Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They use rational numbers, demonstrate

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flexibility in problem solving, identify and use measurement tools. Students display and interpret data using graphs to solve problems. They perform addition, subtraction, and multiplication, create simple patterns, and are beginning to understand probability.



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Grade 7 Mathematics ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They demonstrate number sense for rational numbers and represent numbers using at least one strategy. Students solve basic addition problems using visual aids and appropriate technology and identify angles using a single tool. They identify basic geometric figures using manipulative shapes. Students collect and organize data using graphs. They can also repeat AB patterns.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They demonstrate number sense for rational numbers and represent numbers using at least one strategy. Students identify parts of an equation, solve basic addition problems using visual aids and appropriate technology, and identify angles using a single tool. They identify basic 2D and 3D geometric figures using manipulative shapes and identify matching figures of congruence and symmetry. Students collect, organize, and display data to solve problems using graphs and can identify the mode. They recognize and repeat AB patterns.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They identify geometric figures from top, middle, and bottom, and can demonstrate knowledge of 3D figure. Students show an understanding of ordinal numbers. Students collect, organize, display, and make simple data interpretations using graphs to solve problems. They can also identify changes in relationships, understand ordered pairs, and can extend patterns.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They select the operation necessary to solve problems and solve simple one-step equations. Students identify steps to solve problems involving



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surface area and volume. They identify congruent and symmetrical figures. Students collect, organize, display, and interpret data using graphs to solve problems. They also interpret how changes in quantity affect relationships between sets and can create patterns.



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Grade 8 Mathematics ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They demonstrate number sense for rational numbers and represent numbers using one strategy. Students identify dilations and identify rates faster or slower. They identify basic 2D and 3D geometric figures using manipulative shapes and identify matching figures of congruence and symmetry. Students collect and organize data using graphs.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They understand dilations, identify geometric figures from top, middle, and bottom, and recognize 3D figures. Students also recognize change in one dimension of a figure and can solve simple addition and subtraction equations. They collect, organize, display, and make simple data interpretations using graphs to solve problems. Students also understand faster and slower rates.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They understand real numbers, select the necessary operation, and solve one-step equations. Students identify steps to solve problems involving surface area and volume; and recognize that change in one dimension of a figure affects area, perimeter, and volume. They identify, predict, and illustrate dilations. Students collect, organize, display, and make simple data interpretations using a variety of graphs. They also interpret how changes in quantity affect relationships between sets and begin to apply faster and slower rates.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They apply knowledge of real numbers and solve equations involving addition, subtraction, and multiplication. Students identify, predict, illustrate, and describe dilations. They identify how change in one dimension of a figure affects area,



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perimeter, and volume. Students collect, organize, display, and interpret data from a variety of graphs to solve problems. They also determine faster and slower rates.



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Grade 10 Mathematics ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of the subject area. They identify basic 2D and 3D geometric shapes. Students understand one-to-one correspondence with manipulatives and are beginning to identify one-to-one correspondence with real numbers. They also identify information in a mathematics problem.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of the subject area. They identify information in equations and formulas and demonstrate computational responses. Students classify and attempt to solve mathematical problems using 2D and 3D geometric shapes. They understand one-to-one correspondence relating manipulatives to a written equation. Students collect, organize, and display data using a variety of graphs. They have an emerging ability to perform calculator manipulation.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations consistently demonstrate their understanding of the subject area. They demonstrate conceptual and computational responses and use appropriate technology to mathematical problems, understand mathematical models of word problems, and can solve simple equations. Students can also demonstrate a one-to-one correspondence by creating equations using manipulatives. They solve mathematics problems using 2D and 3D geometric shapes. Students collect, organize, display, and make simple interpretations of data from a variety of graphs to solve problems. They are also beginning to understand probability.

Level IV

“Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe and demonstrate their knowledge of the subject area. They demonstrate accurate conceptual and computational responses and can solve a variety of algebraic and geometric problems. Students understand and apply mathematical models of word problems and use a variety of technologies to solve problems. They understand the correlation between 2D and 3D geometric shapes and demonstrate a



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one-to-one correspondence by creating equations and applying them to real situations. Students collect, organize, display, and interpret data from graphs to solve problems. They also understand probability and can categorize rates.



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Grade 5 Science ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of food chains and food webs, weather, climate, water cycle, and ecosystems. They recognize plants and animals as different from humans; recognize that simple machines exist; and demonstrate an awareness of wind, but may not comprehend force.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of food chains and food webs, weather, climate, water cycle, and ecosystems. They identify differences between plants and animals; identify forces of nature; and identify simple machines.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent understanding of food chains and food webs, weather, climate, water cycle, and ecosystems and begin to apply their knowledge. They identify the environments where specific animals live; make connections between plants and animals; describe how wind and water affect landforms; and use simple machines and describe their function. Students can also identify needs of plants and animals, make simple predictions, and identify weather conditions using symbols.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe, demonstrate, and apply their knowledge of food chains and food webs, weather, climate, water cycle, and ecosystems. They begin to understand and differentiate among classifications of plants and animals. Students also demonstrate the interdependence of plants, animals, and their environments by identifying their role in the food chain. They can identify forces that shape landforms; demonstrate how force and friction affect motion; and describe how machines help us.



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Grade 8 Science ALDs

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of cells, cell functions, and their role in organisms; Earth and its basic elements; and chemical and physical changes. They have basic understanding of the properties of water and human impact on water; can describe factors that impacted geological events; and have partial understanding of scientific inquiry and technological design.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of cells, cell functions, and their role in organisms; Earth and its basic elements; and chemical and physical changes. They can describe factors that impacted geological events and Earth’s change over time; have a basic understanding of the properties of water and the water cycle; and understand some properties of pure substances. Students can also describe the structure and function of animal cells and single-celled organisms, and their role; and understand the role of microorganisms in human disease; and understand innovations of biotechnology.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent understanding and begin to apply knowledge of the subject area. They understand the processes, structure, and function of a variety of single-celled organisms; understand disease control; and describe the role of microorganisms in human disease. Students also understand the properties, distribution, uses, and quality of water; recognize the human impact on water; and describe factors that impact geological events and changes over time. They also identify properties of pure substances, distinguish between chemical and physical changes; and describe how chemicals affect humans. They understand vocabulary, principles, and methodologies of scientific inquiry and technological design.

Level IV

“Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe, demonstrate, and apply their understanding of the subject area. They investigate cells, cell

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functions, and their role in organisms; and apply their knowledge of the role of microorganisms in human disease. Students explain properties, distribution, uses, and quality of water; and explain the human impact on the water system. They also investigate and apply chemical and physical changes; predict the impact of chemicals on humans; and apply the methodologies of scientific inquiry and technology design.



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Grade 10 Science ALDs**Level I**

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate partial understanding of chemical and physical changes; the cellular basis of life; reproduction and heredity; changes in organisms over time; classification systems and the structure and function of organisms; and ecological relationships among organisms and adaptive responses of organisms.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate inconsistent understanding of chemical and physical changes; and the cellular basis of life. They identify offspring from parent animals and changes in organisms over time. Students also organize information about the structure and function of organisms and classify organisms based on similar characteristics.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate consistent understanding and begin to apply knowledge in the subject area. Students begin to apply vocabulary, principles, and methodologies of scientific inquiry. They can describe and begin to apply knowledge of chemical and physical changes, the cellular basis of life, reproduction and heredity, changes in organisms over time, classification systems, and the structure and function of organisms. Students also understand ecological relationships among organisms and adaptive responses of organisms.

Level IV

“Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations consistently describe, demonstrate, and apply knowledge in the subject area. They can describe and apply chemical and physical changes, the cellular basis of life, basic evolution of organisms, and life requirements for different organisms. Students can apply basic classification systems that include the structure and



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function of organisms, habitats for organisms, and adaptive responses of organisms. They also apply vocabulary, principles, and methodologies of scientific inquiry.



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Grade 10 Writing ALDS

Level I

“Level I” shall mean that the student fails to achieve at a basic level. Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate little ability to explore, organize, or use information to generate products and answer questions, using appropriate conventions of language and grammar. They have little knowledge of new vocabulary and rarely use information to communicate. Students can label content-related diagrams; copy words from words or phrase banks; respond using short answers rather than complete sentences; and respond with visual support or print.

Level II

“Level II” shall mean that the student achieves at a basic level. Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate an inconsistent ability to explore, organize, or use information to generate products and answer questions, using appropriate conventions of language and grammar. They inconsistently manipulate, order, and or communicate about information presented that is read, heard, or viewed, this includes written and spoken expression. Students inconsistently identify problems; use limited information to communicate; take notes, list words, phrases or expressions; and take notes using graphic organizers or models. Students have an emerging vocabulary knowledge of language and an emerging knowledge of appropriate conventions.

Level III

“Level III” shall mean that the student achieves at a proficient level. Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level with appropriate modifications and accommodations demonstrate a consistent ability to explore, organize and/or use information to generate products and answer questions, using appropriate conventions of language and grammar. They consistently manipulate, order, and or communicate about information presented that is read, heard, or viewed, this includes written and spoken expression. Students may also determine and apply solutions to problems; use information to communicate; have consistent knowledge of appropriate conventions; consistently use and learn new words; and generate ideas for a product.

Level IV

Level IV” shall mean that the student achieves at an advanced level. Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level with appropriate modifications and accommodations demonstrate a consistent, superior ability to explore, organize and/or use information to generate products and answer



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questions, using appropriate conventions of language and grammar at an exemplary level. They independently manipulate, order, and or communicate about information presented that is read, heard, or viewed, this includes written and spoken expression. Students also apply the skill and transfer information in various contexts and settings in precise language. They also generate solutions to problems (cause and effect); use information to communicate or create an informational product; use appropriate language conventions in real world situations; and extend vocabulary for use in a communication product.



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Appendix B: Detailed Standard Setting Results by Course and Grade

Reading Standard Setting Results

Grade	Round		Level I	Level II	Level III	Level IV
Pre3	1	Median		2	4	8
		Impact	13%	15%	36%	36%
		Std. Error		0.27	0.32	0.42
	2	Median		2	4	8
		Impact	13%	15%	36%	36%
		Std. Error		0.23	0.30	0.20
3	1	Median		8	14	22
		Impact	10%	20%	36%	34%
		Std. Error		0.66	0.84	0.88
	2	Median		8	14	22
		Impact	10%	20%	36%	34%
		Std. Error		0.48	0.73	0.48
4	1	Median		8	16	24
		Impact	10%	23%	32%	35%
		Std. Error		0.64	0.75	0.54
	2	Median		10	16	24
		Impact	13%	20%	32%	35%
		Std. Error		0.64	0.75	0.54
5	1	Median		10	18	24
		Impact	12%	26%	31%	31%
		Std. Error		0.66	0.71	0.66
	2	Median		10	18	22
		Impact	12%	26%	19%	43%
		Std. Error		0.58	0.51	0.43
6	1	Median		10	18	24
		Impact	12%	28%	23%	37%
		Std. Error		0.64	0.85	0.73
	2	Median		10	16	22
		Impact	12%	20%	24%	44%
		Std. Error		0.74	0.67	0.79
7	1	Median		8	14	20
		Impact	6%	13%	23%	58%
		Std. Error		0.63	0.80	0.97
	2	Median		8	16	22
		Impact	7%	20%	27%	46%
		Std. Error		0.84	0.93	0.79



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8		Median		10	16	22
	1	Impact	13%	20%	24%	43%
		Std. Error		0.87	1.01	0.69
2		Median		10	16	24
		Impact	13%	20%	33%	34%
		Std. Error		0.57	0.70	0.71
10	1	Median		8	18	26
		Impact	14%	28%	31%	27%
		Median \pm 2 SE		1.13	1.24	0.65
2		Median		10	18	26
		Impact	18%	24%	31%	27%
		Median \pm 2 SE		1.06	0.94	0.54

* Range of cut scores based on standard errors not reported for Pre3 due to the narrow range of possible scores



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Mathematics Standard Setting Results

Grade	Round		Level I	Level II	Level III	Level IV
Pre3	1	Median		2	6	8
		Impact	13%	35%	24%	28%
		Std. Error		0.47	0.42	0.30
	2	Median		2	6	8
		Impact	13%	35%	24%	28%
		Std. Error		0.25	0.23	0.21
3	1	Median		8	16	24
		Impact	10%	19%	39%	32%
		Std. Error		0.77	1.08	0.75
	2	Median		8	16	24
		Impact	10%	19%	39%	32%
		Std. Error		0.70	0.92	0.56
4	1	Median		6	16	22
		Impact	10%	39%	31%	20%
		Std. Error		0.65	0.69	0.74
	2	Median		6	14	20
		Impact	10%	30%	31%	29%
		Std. Error		0.39	0.58	0.88
5	1	Median		8	18	24
		Impact	9%	39%	26%	26%
		Std. Error		0.58	0.68	0.89
	2	Median		8	18	24
		Impact	9%	39%	26%	26%
		Std. Error		0.39	0.62	0.83
6	1	Median		10	16	22
		Impact	16%	22%	27%	35%
		Std. Error		0.65	0.63	0.66
	2	Median		10	16	22
		Impact	16%	22%	27%	35%
		Std. Error		0.47	0.52	0.36
7	1	Median		8	16	22
		Impact	8%	23%	24%	45%
		Std. Error		0.65	0.68	0.63
	2	Median		8	16	24
		Impact	8%	23%	35%	34%
		Std. Error		0.59	0.69	0.63



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8		Median		8	16	22
	1	Impact	12%	42%	25%	21%
		Std. Error		0.57	0.88	0.61
8		Median		6	14	20
	2	Impact	7%	36%	30%	27%
		Std. Error		0.49	0.64	0.71
10		Median		8	16	26
	1	Impact	16%	46%	31%	7%
		Std. Error		1.42	1.30	0.89
10		Median		6	16	26
	2	Impact	11%	51%	31%	7%
		Std. Error		0.86	1.34	0.70



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Science Standard Setting Results

Grade	Round		Level I	Level II	Level III	Level IV
5	1	Median		4	12	18
		Impact	4%	26%	38%	32%
		Std. Error		0.51	0.69	0.67
	2	Median		6	14	18
		Impact	8%	34%	26%	32%
		Std. Error		0.37	0.67	0.70
8	1	Median		6	12	16
		Impact	11%	37%	23%	29%
		Std. Error		0.53	0.68	0.64
	2	Median		6	12	16
		Impact	11%	37%	23%	29%
		Std. Error		0.37	0.48	0.36
10	1	Median		8	16	22
		Impact	18%	34%	34%	14%
		Median \pm 2 SE		0.91	10.7	0.67
	2	Median		8	16	22
		Impact	18%	34%	34%	14%
		Median \pm 2 SE		0.82	0.80	0.60



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Writing Standard Setting Results

Grade	Round		Level I	Level II	Level III	Level IV
10	1	Median		4	8	12
		Impact	27%	36%	24%	13%
		Median \pm 2 SE		0.46	0.70	0.51
	2	Median		4	8	12
		Impact	27%	36%	24%	13%
		Median \pm 2 SE		0.47	0.68	0.72



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Appendix C: Impact Tables by Subject Area

Reading – Cumulative Percentage of Students at Each Score point by Grade Level

Score	Pre3	3	4	5	6	7	8	10
0	13%	3%	5%	3%	3%	3%	4%	6%
2	28%	5%	6%	5%	5%	4%	5%	7%
4	46%	7%	8%	6%	6%	5%	7%	9%
6	64%	10%	10%	9%	8%	6%	10%	14%
8	83%	16%	13%	12%	12%	9%	13%	18%
10	100%	22%	18%	16%	16%	15%	18%	25%
12		30%	23%	23%	23%	20%	24%	30%
14		39%	33%	30%	31%	26%	33%	35%
16		49%	41%	38%	40%	36%	39%	42%
18		58%	48%	47%	48%	43%	49%	48%
20		66%	57%	57%	56%	54%	57%	55%
22		76%	65%	69%	63%	63%	66%	63%
24		86%	74%	80%	74%	75%	75%	73%
26		94%	83%	90%	83%	87%	85%	82%
28		98%	92%	97%	92%	97%	94%	91%
30		100%	100%	100%	100%	100%	100%	100%



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Mathematics – Cumulative Percentage of Students at Each Score point by Grade Level

Score	Pre3	3	4	5	6	7	8	10
0	13%	4%	6%	4%	4%	3%	4%	8%
2	26%	5%	8%	5%	7%	4%	5%	9%
4	48%	7%	10%	7%	9%	5%	7%	11%
6	72%	10%	13%	9%	12%	8%	10%	16%
8	92%	12%	19%	14%	16%	12%	13%	22%
10	100%	16%	30%	21%	21%	17%	18%	36%
12		21%	39%	30%	29%	24%	24%	49%
14		29%	49%	39%	38%	31%	33%	62%
16		37%	60%	48%	48%	38%	39%	72%
18		47%	71%	57%	57%	46%	49%	79%
20		58%	80%	66%	65%	56%	57%	84%
22		68%	87%	74%	75%	66%	66%	88%
24		79%	93%	82%	84%	76%	75%	93%
26		88%	98%	91%	93%	87%	85%	96%
28		95%	99%	97%	98%	97%	94%	98%
30		100%	100%	100%	100%	100%	100%	100%



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Science – Cumulative Percentage of Students at Each Score point by Grade Level

Score	5	8	10
0	3%	4%	7%
2	4%	7%	9%
4	8%	11%	12%
6	13%	20%	18%
8	21%	33%	24%
10	30%	48%	32%
12	42%	59%	41%
14	54%	71%	52%
16	68%	81%	65%
18	81%	89%	75%
20	92%	95%	86%
22	97%	98%	94%
24	100%	100%	100%

Writing – Cumulative Percentage of Students at Each Score point

Score	10
0	13%
2	27%
4	47%
6	63%
8	74%
10	87%
12	97%
14	100%



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Appendix D: Detailed Evaluation Results

Elementary Panel Evaluation Results

Detailed Evaluation Results – Response Frequency

	Frequency of Response					
	1	2	3	4	5	6
Successfulness of training [6=Very Successful to 1= Very Unsuccessful]						
1a. Successfulness of orientation			1	3	8	8
1b. Successfulness of training on Yes/No method				1	4	14
1c. Successfulness of description of target students		2	2	2	9	5
1d. Successfulness of practice with method		1		1	5	13
1e. Successfulness of interpretation of feedback			1	3	3	13
1f. Successfulness of overall training				2	9	9
Time allocated to training [6= Totally Adequate to 1=Totally Inadequate]						
2a. Time – orientation			1	4	2	13
2b. Time – training on Yes/No method					5	15
2c. Time – description of target students		1	1	3	6	8
2d. Time – practice with method		1		1	7	11
2e. Time – interpretation of feedback		1		1	3	15
2f. Time – Overall training			1	1	4	14
Round One Yes/No Judgments						
3. Confidence in predictions [4=Confident to 1=Not at all confident]		1	10	9		
4. Time for predictions [4=More than enough time to 1=More time needed]			9	11		
Round Two Yes/No Judgments						
5. Confidence in predictions [4=Confident to 1=Not at all Confident]			6	14		
6. Time for predictions [4=More than enough time to 1=More time needed]			7	13		
Overall workshop						
7. Confidence in cut scores [4=Confident to 1=Not at all Confident]		3	9	8		
8. Most useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]			2	17		
9. Least useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]	6	8	3	1		
10. Overall success [4=Very Successful to 1= Very Unsuccessful]			11	9		
11. Overall organization [4=Very Organized to 1=Very Unorganized]			4	16		



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Comments

- Helped me a lot in understanding the Extend1
- It would be most helpful to see a student that would take Extend1 test for regular education teachers
- "It would be good to aim for the majority of the participants being educators who work directly with the population targeted in the standard setting workshop (rest to be reg ed, ESL, etc).
- Reimburse lunch for everyone (those of us who travel each day and save the state hotel charges but we aren't even reimbursed for lunch.
- ALDs created great help in answering yes/no. When we just were creating them I wasn't clear to our group what we were supposed to do. An example would have been helpful.
- Susan and Jim were great!!"
- It would have been better to have more of the teachers of Extend1 students.
- The presenters did an excellent job. They were the right combination of professional, yet friendly. They were complimentary of the group.
- Bottom line - this is the proverbial "cart-before-the-horse". The levels of expectations are too high. We, those who work with the ID-moderate, severe, and profound, need to be part of the test writing process. But this is a good start.
- The workshop was very well organized.
- The presenters were clear about goals and expectations.
- I feel like it may have been beneficial to have a better description of NCEExtend1 students during the orientation session.
- Overall, it was a very positive experience.
- Setting workshops should be located in hotel that honors state rate.
- I think these sessions were very helpful for the regular education teachers to see how other areas are tested and how much the extend tests are correlated to the regular test and standard course of study
- The development of the ALDs was unclear at first. It was difficult to ascertain what our objective was. Each facilitator had a different answer and description of our task. When we went over the ALDs as a group, it did not feel like our opinions were valued.
- Give more details about the type of students we are to consider (such as severe, moderate, or mild). I work indirectly with EC students as an ESL teacher and had to ask my EC colleagues about what they thought was appropriate at first. After that, I was okay with everything else. I enjoyed the Marriott!!
- We needed more time to draft ALDs. They were not consistent across grade levels because we didn't know what to do what first and we needed more clarification on how to draft them. We needed a whole day for that alone and less time for making judgments. I had a great time.
- I would have done better at working with a group of 2 or 3 rather than 5 or 6 - too much discussion and opinions, too hard to get finished with all that.
- All went very well; I look forward to future workshops.
- Be sure to include more teachers that teach the particular subject and/or group of students. Great Presenters!



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Middle Panel Evaluation Results

Detailed Evaluation Results – Response Frequency

	Frequency of Response					
	1	2	3	4	5	6
Successfulness of training [6=Very Successful to 1= Very Unsuccessful]						
1a. Successfulness of orientation			1		7	9
1b. Successfulness of training on Yes/No method					5	12
1c. Successfulness of description of target students	1			1	9	6
1d. Successfulness of practice with method			1	2	7	7
1e. Successfulness of interpretation of feedback				2	3	12
1f. Successfulness of overall training					5	12
Time allocated to training [6= Totally Adequate to 1=Totally Inadequate]						
2a. Time – orientation			1	1	3	12
2b. Time – training on Yes/No method					4	13
2c. Time – description of target students	1				8	8
2d. Time – practice with method	1				6	10
2e. Time – interpretation of feedback				3	1	13
2f. Time – Overall training				1	4	12
Round One Yes/No Judgments						
3. Confidence in predictions [4=Confident to 1=Not at all confident]			9	8		
4. Time for predictions [4=More than enough time to 1=More time needed]			5	12		
Round Two Yes/No Judgments						
5. Confidence in predictions [4=Confident to 1=Not at all Confident]			2	15		
6. Time for predictions [4=More than enough time to 1=More time needed]			5	12		
Overall workshop						
7. Confidence in cut scores [4=Confident to 1=Not at all Confident]			5	12		
8. Most useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]	3	2	3	9		
9. Least useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]	2	9	2	1		
10. Overall success [4=Very Successful to 1= Very Unsuccessful]			5	12		
11. Overall organization [4=Very Organized to 1=Very Unorganized]			4	13		



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Comments

- The non-EC teachers needed an explanation and/or description of who is an EXTEND I student (what criteria are used for placement in this category?) Great session! Thanks.
- Many of us commute to the workshop. It would have been nice to have a light breakfast. Juice was nice, but a bagel or fruit would have been greater. Also I feel we should be compensated for lunch that was on our own.
- This was a well-organized and extremely useful workshop. I feel more knowledgeable about these kids! The test seems very targeted to the ALDs.
- Excellent experience for those of us that do not work directly with this student population
- Maybe it is good if teachers are assigned according to their field of interest.
- I enjoyed the workshop and found it to be very helpful.
- Snacks were greatly appreciated! :-)
- Great job!!
- Thanks for the opportunity. You were so professional and well organized. Excellent staff Barbara and Dave. :-)
- Possibly include more "description(s)" of targeted students as they relate to the subject (i.e., Extend I). Most panelists were not aware of the cognitive, physical, etc. issues confronting Extend I students.
- True group discussions are really needed to identify the group's rationale for saying yes/no for the items. Hearing from panelists as to what caused "them" to yes/no an item would have been beneficial. I felt we were too hurriedly doing the round 2 data because no one knew why or what made the items difficult or easy.
- This method was easier than the "book-mark" method, but we had MUCH BETTER discussions and clarifications using the Bookmark method (i.e., reading standards 2008)!



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High School Panel Evaluation Results

Detailed Evaluation Results – Response Frequency

	Frequency of Response					
	1	2	3	4	5	6
Successfulness of training [6=Very Successful to 1= Very Unsuccessful]						
1a. Successfulness of orientation		1	1		10	7
1b. Successfulness of training on Yes/No method			1	3	9	6
1c. Successfulness of description of target students		2	3	5	6	3
1d. Successfulness of practice with method				7	6	6
1e. Successfulness of interpretation of feedback				6	7	6
1f. Successfulness of overall training				3	14	2
Time allocated to training [6= Totally Adequate to 1=Totally Inadequate]						
2a. Time – orientation			5	1	3	1
2b. Time – training on Yes/No method				3	7	9
2c. Time – description of target students		3	1	3	8	4
2d. Time – practice with method		1		3	6	9
2e. Time – interpretation of feedback		1		4	8	6
2f. Time – Overall training			2	2	9	6
Round One Yes/No Judgments						
3. Confidence in predictions [4=Confident to 1=Not at all confident]		1	7	11		
4. Time for predictions [4=More than enough time to 1=More time needed]			8	11		
Round Two Yes/No Judgments						
5. Confidence in predictions [4=Confident to 1=Not at all Confident]			4	15		
6. Time for predictions [4=More than enough time to 1=More time needed]			7	12		
Overall workshop						
7. Confidence in cut scores [4=Confident to 1=Not at all Confident]			12	7		
8. Most useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]	1	1	1	14		
9. Least useful feedback data [4=Panel summary, 3=Group discussions, 2=Impact 1=P-values]	3	12	1			
10. Overall success [4=Very Successful to 1= Very Unsuccessful]		1	11	7		
11. Overall organization [4=Very Organized to 1=Very Unorganized]			8	11		



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Comments

- Developing even more precise and quantitative descriptors to describe students' successful responses to testing
- "Interesting process for teachers - helpful!
- More information on the target student would be very helpful (especially initially). Example: writing prompts are helpful
- More practice at drafting the ALDs (in groups, perhaps) might be beneficial
- Directions to teachers were clear
- Pacing was effective
- More space to spread out would be nice
- A very successful learning experience"
- A copy of the extensions used in the classrooms would have been helpful.
- It was very difficult and confusing to try to write ALDs without knowing expansions. Only being given the standard curriculum goals and limited knowledge of classroom, I did not know where to being to develop descriptors. I felt like I was working blindly. With no communication until the end of the day with the other grade levels, we found we had approached the task differentially and did not have time to work on transition between Elementary, Middle, and HS. When completing ratings, I did not find the ALD's to be very helpful - especially since it was so vague (initial ALD statement combined with SCOS goals)."
- Please include more exceptional children instructors, I know that we need regular education teachers and support the personnel staff, but please encourage a greater number of EC teachers. They know which goals cannot be obtained by the student, whose academic limitations requires them to be tested by Extend I and Extend II.
- Although I found the organization of the standard setting workshops well-planned, I do not feel we were properly prepared to successfully write ALDs. We were not provided goals up the grade levels to see what prior knowledge would have been taught. It might have been helpful, tool for Gen ED/AIG teachers to have been shown video/picture examples of what an Extend
- I think a 10-minute video clip of an actual Extend1 classroom needs to be shown prior to creating ALDs, etc. Many of us spent two days trying to wrap our heads around who these kids are. A video would give concrete examples of some of the types of students who would be tested.
- Include additional description of target students
- Teachers should be sent details about Extend 1 test methods and grading rules in brief
- I feel creating the ALD needed more time given to it as I felt when it came to evaluating/creating cut scores made it more difficulty
- I would allot more time to prepare participants for the ALDs writing and more practice items for setting cut scores. I would recommend more training time.



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Appendix E: Standard Setting Internal NCDPI Committee

NCEXTEND1 Interim Standard Setting

August 20, 2008

Internal NCDPI Committee

Name	Gender	Ethnicity	Agency Section/Division
Lou Fabrizio	Male	White	Director/Accountability Services
Melinda Taylor	Female	White	Test Development/Accountability Services
Tom Winton	Male	White	Instructional Support & Related Services/Exceptional Children
Jim Kroening	Male	White	Test Development/Accountability Services
Pam Biggs	Female	White	Testing Policy & Operations/Accountability Services
Sheila Brown	Female	White	Technical Outreach for Public Schools/North Carolina State University
Tammy Howard	Female	White	Test Development/Accountability Services
Erin Bohner	Female	White	Technical Outreach for Public Schools/North Carolina State University
Laura Snyder	Female	White	Assistant Director/Exceptional Children



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NCEXTEND1 Final Standard Setting

September 22, 2009

Internal NCDPI Committee

Name	Gender	Ethnicity	Agency Section/Division
Melinda Taylor	Female	White	Test Development/Accountability Services
Jim Kroening	Male	White	Test Development/Accountability Services
Tara Almeida	Female	White	English language arts/Curriculum, Instruction, & Technology
Phyllis Blue	Female	White	English language arts/Curriculum, Instruction, & Technology
Kitty Rutherford	Female	White	Mathematics/Curriculum, Instruction, & Technology
Robin Barbour	Female	White	Mathematics/Curriculum, Instruction, & Technology
Tammy Howard	Female	White	Test Development/Accountability Services
Michael Gallagher	Male	White	Test Development/Accountability Services
Tom Winton	Male	White	Instructional Support & Related Services/Exceptional Children
M. E. Hudson	Male	White	Testing Policy & Operations/Accountability Services
Beverly Vance	Female	Black	Science/Curriculum, Instruction, & Technology
Nancy Carolan	Female	White	Testing Policy & Operations, Accountability Services
Clair Greer	Female	White	Instructional Support & Related Services/Exceptional Children
Gary L. Williamson	Male	White	Director/Accountability Services
Cindy Williamson	Female	White	Director/Curriculum, Instruction, & Technology
Lou Fabrizio	Male	White	Director/Accountability Services



Appendix F: Achievement Level Descriptors

NCEXTEND1 Grade 3 Reading Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 3. Students do not apply meaning to words, identify sight vocabulary, or make connections to text. They have difficulty comprehending text or responding to text.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 3. Students rarely identify sight vocabulary, make few connections to text. They comprehend or respond to text at an inconsistent level.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 3. Students identify sight vocabulary and make connections to text or text to world, comprehend text, and respond to text.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 3. Students identify and understand text vocabulary and make connections to a variety of texts. They identify setting, main characters, and events in various literary genres.



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NCEXTEND1 Grade 4 Reading Achievement Level Descriptors**Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 4. Students do not apply meaning to words, identify sight vocabulary, or make connections to text. They have difficulty comprehending text or responding to text.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 4. Students rarely identify sight vocabulary, make few connections to text, are beginning to comprehend text, and respond to text in or at an inconsistent level. They infrequently use visual representations to examine and comprehend text.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 4. Students identify sight vocabulary, use word identification strategies, make connections with text to world and text to text, comprehend text, and respond to text. They examine and use visual representations to increase understanding of various types of texts.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 4. Students identify and understand text vocabulary, use word identification strategies, make connections with text to world and



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text to text. Students demonstrate comprehension of text through referencing text, identifying main idea and setting, predicting, and responding to text. They examine and use visual representations to increase understanding of various types of texts.

NCEXTEND1 Grade 5 Reading Achievement Level Descriptors**Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 5. Students do not apply meaning to words, identify sight vocabulary, or make connections to text. They have difficulty comprehending text or responding to text.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 5. Students rarely identify sight vocabulary, make few connections to text, are beginning to comprehend text, and respond to text at an inconsistent level. They begin to use visual representations to examine and comprehend text.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 5. Students identify sight vocabulary, use word identification strategies, make connections with text to world and text to text, comprehend text, and respond to text. They examine and use visual representations to increase understanding of various types of texts.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.



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Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 5. Students identify and understand text vocabulary, use word identification strategies, make connections with text to world and text to text. Students demonstrate comprehension of text through referencing text, identifying main idea and setting, predicting, and responding to text. They examine and use visual representations to increase understanding of various types of texts.

NCEXTEND1 Grade 6 Reading Achievement Level Descriptors**Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 6. Students show little to no evidence of reading skills and strategies required to comprehend a variety of grade level texts, such as expressive, informational, and argumentative.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 6, such as expressive, informational, and argumentative. Students inconsistently apply strategies such as identifying sight words, making connections, and responding to text. They inconsistently examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 6, such as expressive, informational, and argumentative. Students apply strategies such as identifying sight words, making connections, and responding to text. They examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.

Achievement Level IV

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Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 6, such as expressive, informational, and argumentative. Students apply strategies such as identifying and understanding text vocabulary, making connections, and responding to text. Students analyze relationships of characters, ideas, concepts, and/or experiences to increase the understanding of texts. They use criteria to make judgments about printed text.

NCEXTEND1 Grade 7 Reading Achievement Level Descriptors**Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 7. Students show little to no evidence of reading skills and strategies required to comprehend a variety of grade level texts, such as expressive, informational, and argumentative.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 7, such as identifying sight words, making connections, and responding to text. Students inconsistently examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 7, such as expressive, informational, and argumentative. Students apply strategies such as identifying sight words, making connections, and responding to text. They examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.



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Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 7, such as expressive, informational, and argumentative. Students apply strategies such as identifying and understanding text vocabulary, making connections, and responding to text. Students analyze relationships of characters, ideas, concepts, and/or experiences to increase the understanding of texts. They use criteria to make judgments about printed text.

NCEXTEND1 Grade 8 Reading Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 8. Students show little to no evidence of reading skills and strategies required to comprehend a variety of grade level texts, such as expressive, informational, and argumentative.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 8, such as expressive, informational, and argumentative. Students inconsistently apply strategies such as identifying sight words, making connections, and responding to text. They inconsistently examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate reading skills required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 8, such as expressive,



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informational, and argumentative. Students apply strategies such as identifying sight words, making connections, and responding to text. They examine relationships of characters, ideas, concepts, and/or experiences while using visual representations to increase the understanding of texts.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina *Standard Course of Study* Extended Content Standards at Grade 8, such as expressive, informational, and argumentative. Students apply strategies such as identifying and understanding text vocabulary, making connections, and responding to text. Students analyze relationships of characters, ideas, concepts, and/or experiences to increase the understanding of texts. They use criteria to make judgments about printed text.

NCEXTEND1 Grade 10 Reading Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I do not demonstrate grade level reading skills required in the North Carolina Extended Content Standards at Grade 10. Students show little to no evidence of reading skills and strategies required to comprehend expressive, informational, and argumentative world texts/events.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successfully at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate grade level reading skills required in the North Carolina Extended Content Standards at Grade 10. Students rarely show evidence of comprehension of expressive, informational, and argumentative world texts/events. They inconsistently explore problems/solutions, cause/effect, and their relationships in the world and across texts. Students rarely identify relationships among events, ideas, concepts, and/or criteria while using visual representations to increase the understanding of texts.

Achievement Level III



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Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate grade level reading skills required in the North Carolina Extended Content Standards at Grade 10. Students show evidence of comprehension of a variety of expressive, informational, and argumentative world texts/events. They determine problems/solutions, cause/effect, and their relationships in the world and across texts. Students examine relationships of events, ideas, concepts, and/or criteria while using visual representations to increase the understanding of texts.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate reading skills beyond those required in the North Carolina Extended Content Standards at Grade 10. Students comprehend a variety of expressive, informational, and argumentative world texts/events. They evaluate problems/solutions, cause/effect, and their relationships in the world and across texts. They analyze relationships of events, ideas, concepts, and/or criteria while using visual representations to increase the understanding of texts.

***NCEXTEND1* Grade 3 Mathematics Achievement Level Descriptors**

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level demonstrate emerging number sense for whole numbers and for part-whole relationships. They may demonstrate the effects of addition and subtraction (more and less) with manipulatives. They rarely use measurement tools and/or methods. They can match shapes. They do not locate objects/points on a grid. They sometimes can display simple personally relevant data. They match patterns. They rarely match equal sets of manipulatives.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level demonstrate limited number sense for whole numbers (0-999) and for part-whole relationships. They sometimes add and subtract numbers correctly with or without manipulatives. They demonstrate limited use of measurement tools and/or methods. They can sort by shape and other physical attributes. They inconsistently locate objects/points on a grid. They display



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data. They rarely create different ordered arrangements using manipulatives. They inconsistently replicate patterns. They match equal sets of manipulatives.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate number sense for whole numbers (0-999) and for part-whole relationships. They consistently add and subtract numbers correctly with or without manipulatives. They consistently demonstrate ability to use measurement tools and/or methods. They can describe and classify shapes. They consistently locate objects/points on a grid. They organize and display data. They use manipulatives to create different ordered arrangements. They consistently replicate patterns. They model equality using sets of manipulatives.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level can represent whole numbers (0-999) and part-whole relationships in multiple forms. They fluently add and subtract numbers correctly with or without manipulatives. They consistently choose the appropriate measurement tools and/or methods, and use them effectively. They can compare, describe, and classify shapes. They consistently locate points on a grid and follow the path between given points. They collect, organize, and display data to solve problems. They use manipulatives to create different ordered and unordered arrangements. They consistently identify and extend patterns. They model equality using number sentences.

NCEXTEND1 Grade 4 Mathematics Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level demonstrate emerging number sense for rational numbers and for part-whole relationships. They cannot solve problems using addition or subtraction correctly with or without manipulatives. They can match objects to a specific location on a grid. They identify lines in parallel or perpendicular placements. They rarely identify translations of figures in a plane. They can display simple personally relevant data. They can sometimes replicate patterns. They rarely model simple number sentences.

Achievement Level II



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Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level demonstrate limited number sense for rational numbers and for part-whole relationships. They sometimes solve problems using addition or subtraction correctly with or without manipulatives. They can inconsistently find area and perimeter with or without manipulatives. They sometimes correctly place objects on a specific location on a grid. They identify lines in parallel and perpendicular placements. They can demonstrate model translations of figures in a plane. They show limited success when organizing and displaying data. They can replicate patterns. They model simple number sentences with difficulty.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate number sense for rational numbers and for part-whole relationships. They can represent rational numbers and compare part-whole relationships in multiple forms. They consistently solve problems using addition or subtraction correctly with or without manipulatives. They can consistently find area and perimeter with or without manipulatives. They consistently place objects on a specific location on a grid. They position lines in parallel and perpendicular placements. They can demonstrate model translations and reflections of figures in a plane. They successfully collect, organize, and display data. They consistently extend patterns. They model simple number sentences.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level demonstrate number sense for rational numbers and for part-whole relationships. They can represent rational numbers and compare part-whole relationships in multiple forms. They select strategies to solve problems using addition or subtraction correctly with or without manipulatives. They can consistently solve problems involving area and perimeter with or without manipulatives. They consistently use coordinates to find specific locations on a grid. They create parallel and perpendicular lines. They can demonstrate model translations, reflections, and rotations of figures in a plane. They successfully collect, organize, and display data to solve problems. They can describe the likelihood of events. They consistently create and extend patterns. They create simple number sentences.

NCEXTEND1 Grade 5 Mathematics Achievement Level Descriptors

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Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level demonstrate emerging number sense for rational numbers and for part-whole relationships. They rarely add or subtract correctly with or without manipulatives. They are not successful when identifying and measuring angles, or identifying polygons. They have limited success organizing and displaying simple data. They can sometimes replicate patterns. They seldom recognize constant and varying rates of change.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level demonstrate limited number sense for rational numbers and for part-whole relationships. They sometimes solve problems using addition or subtraction correctly with or without manipulatives. They are not consistent when identifying and measuring angles, or identifying polygons. They have limited success organizing and displaying data, and can sometimes find the mode of a set of data. They can replicate patterns. They inconsistently recognize constant and varying rates of change.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate number sense for rational numbers and for part-whole relationships. They can represent rational numbers and compare part-whole relationships in multiple forms. They consistently solve problems using addition or subtraction correctly with or without manipulatives. They consistently identify and measure angles. They can identify and describe a variety of polygons and demonstrate polygons with rotational symmetry. They successfully collect, organize, and display data, and consistently find the mode of a set of data. They consistently extend patterns. They can recognize constant and varying rates of change.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level demonstrate fluency with adding to and taking away from numbers and forming equal grouping. They show flexibility in solving problems by selecting strategies. They



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successfully identify and measure angles. They can identify and describe a variety of polygons and demonstrate polygons with rotational symmetry. They consistently identify examples of parallelism and perpendicularity in the environment. They successfully collect, organize, and display data to solve problems. They consistently extend a variety of patterns. They can recognize and describe constant and varying rates of change.

NCEXTEND1 Grade 6 Mathematics Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level demonstrate emerging number sense for rational numbers. They rarely correctly estimate and measure weight and mass of three-dimensional figures. They rarely identify the center, radii, diameters, and chords of a circle. They have limited success describing the likelihood of an event (certain, impossible, more likely, less likely). They inconsistently replicate patterns. They seldom solve simple one-step equations.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level demonstrate limited number sense for some types of rational numbers. They can estimate and measure weight and mass of three-dimensional figures with limited success. They sometimes solve area, circumference, and perimeter problems. They inconsistently identify the center, radii, diameters, and chords of a circle. They have limited success describing the likelihood of an event (certain, impossible, more likely, less likely). They can rarely demonstrate different ordered and unordered arrangements of items. They can sometimes demonstrate commutative and identity properties of addition and multiplication. They can sometimes extend patterns. They inconsistently solve simple one-step equations.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate number sense for all types of rational numbers. They can estimate and measure weight and mass of three-dimensional figures. They consistently solve area, circumference, and perimeter problems. They can identify the center, radii, diameters, and chords of a circle. They consistently describe the likelihood of an event (certain, impossible, more likely, less likely). They can demonstrate different ordered and unordered arrangements of items. They can demonstrate



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commutative and identity properties of addition and multiplication. They can extend patterns. They consistently solve simple one-step equations.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level demonstrate fluency with adding to and taking away from numbers and forming equal grouping. They can represent all types of rational numbers in multiple forms. They show flexibility in solving problems by selecting strategies. They can estimate and measure weight and mass of a variety of three-dimensional figures. They successfully solve area, circumference, and perimeter problems. They can solve problems involving the center, radii, diameters, and chords of a circle. They consistently describe the likelihood of an event (certain, impossible, more likely, less likely). They can demonstrate different ordered and unordered arrangements of items. They can demonstrate commutative and identity properties of addition and multiplication. They consistently extend a variety of patterns. They very successfully solve simple one-step equations.

NCEXTEND1 Grade 7 Mathematics Achievement Level Descriptors**Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level rarely identify simple relationships in which a change in one quantity relates to change in a second quantity. They rarely identify volume or surface area. They rarely recognize familiar objects from scale drawings. They can identify few aspects of three-dimensional objects. They sometimes recognize congruent three-dimensional figures. They can add relevant data to a simple display. They rarely demonstrate simple patterns (emphasize relation [set of ordered pairs] and function). They rarely solve one-step equations.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level can identify simple relationships in which a change in one quantity relates to change in a second quantity. They can identify volume or surface area. They can recognize familiar objects from scale drawings. They can identify some aspects of three-dimensional objects. They can recognize congruent three-dimensional figures. They can add to a data display. They have difficulty demonstrating simple patterns (emphasize relation [set of ordered pairs] and function). They sometimes solve one-step equations.



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Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level can identify relationships in which a change in one quantity relates to change in a second quantity. They consistently solve problems involving volume and surface area. They can recognize objects from scale drawings. They can identify three-dimensional objects from different perspectives. They can consistently identify congruent and symmetric three-dimensional figures. They successfully collect, organize, and display data. They consistently demonstrate patterns (emphasize relation [set of ordered pairs] and function). They consistently solve one-step equations.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level can identify complex relationships in which a change in one quantity relates to change in a second quantity. They consistently solve problems involving volume and surface area. They can recognize a variety of objects from scale drawings. They can identify three-dimensional objects from different perspectives. They can consistently identify congruent and symmetric three-dimensional figures in a variety of orientations. They successfully collect, organize, and display data to solve problems. They consistently extend patterns (emphasize relation [set of ordered pairs] and function). They consistently solve one-step equations.

***NCEXTEND1* Grade 8 Mathematics Achievement Level Descriptors**

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level have little success solving mathematical problems. They rarely identify dilations (stretching and shrinking). They can usually add relevant data to a simple display. They rarely demonstrate patterns (emphasizing relation [set of ordered pairs] and function). They rarely solve one-step equations correctly. They seldom recognize and describe constant and varying rates of change.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.



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Students performing at this level have limited success solving mathematical problems by selecting strategies and using appropriate technology. They sometimes identify dilations (stretching and shrinking). They can collect and display data using scatter plots and other graphs. They sometimes demonstrate patterns (emphasizing relation [set of ordered pairs] and function). They have limited success solving one-step equations. They inconsistently recognize and describe constant and varying rates of change.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate flexibility in solving mathematical problems by selecting strategies and using appropriate technology. They consistently identify and predict dilations (stretching and shrinking). They can collect and display data using scatter plots and other graphs. They consistently demonstrate patterns (emphasizing relation [set of ordered pairs] and function). They consistently solve one-step equations. They can recognize and describe constant and varying rates of change.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level demonstrate flexibility in solving a variety of mathematical problems by selecting strategies and using appropriate technology. They can recognize how changing one dimension of a figure affects area, perimeter, or volume. They consistently identify, predict, describe, and illustrate dilations (stretching and shrinking). They can collect and display data using scatter plots and other graphs to solve problems. They consistently extend patterns (emphasizing relation [set of ordered pairs] and function). They very successfully solve one-step equations. They consistently recognize and describe constant and varying rates of change.

NCEXTEND1 Grade 10 Mathematics Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at this level have little success solving mathematical problems. They are rarely able to solve problems using two- and three-dimensional shapes, including perimeter, area, and volume. They can demonstrate transformations of figures in a plane. They can usually add relevant data to a simple display. They seldom solve one- or two-step equations correctly.



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Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at this level have limited success solving mathematical problems by selecting strategies and using appropriate technology. They sometimes correctly solve problems using two- and three-dimensional shapes, including perimeter, area, and volume. They inconsistently demonstrate transformations of figures in a plane. They can organize and display data. They can solve one-step equations and have limited success solving two-step equations.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate flexibility in solving mathematical problems by selecting strategies and using appropriate technology. They consistently solve problems using two- and three-dimensional shapes, including perimeter, area, and volume. They can demonstrate transformations of figures in a plane. They use graphs and data to solve problems. They consistently solve two-step equations.

Achievement Level IV

Students at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at this level demonstrate flexibility in solving a variety of mathematical problems by selecting strategies and using appropriate technology. They consistently solve problems using two- and three-dimensional shapes, including perimeter, area, and volume. They can demonstrate and model transformations of figures in a plane. They can describe, compare, and classify geometric figures. They use graphs and data to solve a variety of problems. They successfully solve and create two-step equations.

NCEXTEND1 Grade 10 Writing Assessment Achievement Level Descriptors

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.



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Students performing at Achievement Level I do not demonstrate writing skills specified in the *North Carolina Extended Content Standards* at Grade 10. Students provide little to no evidence of using information to determine problems, solutions, causes and effects, and their relationships when creating written products. They demonstrate little to no understanding of conventions (grammar, usage, and mechanics).

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successfully at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate writing skills specified in the *North Carolina Extended Content Standards* at Grade 10. Students provide limited evidence of using information to determine problems, solutions, causes and effects, and their relationships when creating written products. They demonstrate an occasional understanding of conventions (grammar, usage, and mechanics).

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate writing skills specified in the *North Carolina Extended Content Standards* at Grade 10. Students provide evidence of using information to determine problems, solutions, causes and effects, and their relationships when creating written products. They demonstrate an understanding of conventions (grammar, usage, and mechanics).

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that specified to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate writing skills beyond those specified in the *North Carolina Extended Content Standards* at Grade 10. Students use information to determine problems, solutions, causes and effects, and their relationships when creating written products. They demonstrate an understanding and application of conventions (grammar, usage, and mechanics). They apply vocabulary knowledge by using new words.

NCEXTEND1 Grade 5 Science Achievement Level Descriptors

Achievement Level I



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Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I may recognize living and/or non-living things; may recognize different landforms; are beginning to identify different kinds of weather; and may recognize motion.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II identify living and non-living things; recognize that forces shape landforms; identify different kinds of weather; and recognize that a force is needed to cause motion.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently identify how living and non-living things are connected including characteristics of food chains and ecosystems; recognize how forces shape landforms; recognize different kinds of weather in different environments; and identify how different forces affect motion.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV demonstrate how living and non-living things are connected and make predictions about the effects of changes in ecosystems; make predictions about how forces affect landforms; identify the effects of weather over time; and predict how different forces affect motion.

***NCEXTEND1* Grade 8 Science Achievement Level Descriptors**

Achievement Level I

Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.



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Students performing at Achievement Level I may distinguish between land and water. Students may recognize that humans need water, are beginning to recognize factors that affect human health, and may recognize that human diseases exist. Students may recognize that things change and that humans live on Earth. They may recognize that all things are made of parts.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II are beginning to identify the distribution of some of the water on Earth and some of the properties of water. Students can recognize that humans impact water resources, that chemicals affect human health, and that human diseases have causes. Students can identify a physical or chemical change and that the Earth has changed over time. They recognize that all living things are made of parts.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III identify the distribution of most of the water on Earth and the properties of water. Students can identify how humans impact water resources, identify how chemicals affect human health, and that microorganisms cause human disease. Students can classify physical changes versus chemical changes and can identify that geological events have changed the Earth over time. They recognize that all organisms are made of cells.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV identify the distribution of water on Earth and the properties of water. Students predict how human actions may impact water resources, how chemicals affect human health, and recognize that specific microorganisms cause certain types of human disease. Students predict physical changes versus chemical changes and can identify how geological events have changed the Earth over time. They recognize that all organisms are made of cells and each has its own function.

NCEXTEND1 Grade 10 Science Achievement Level Descriptors

Achievement Level I



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Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Students performing at Achievement Level I may recognize that living things need food to live. These students may recognize that living things reproduce. They may recognize that all living things are different and that living things live in an environment.

Achievement Level II

Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Students performing at Achievement Level II recognize that organisms are made of cells which need food to live. They recognize that organisms reproduce and pass on some traits to their offspring. These students recognize different organisms have different characteristics and that organisms and non-living things are part of an environment.

Achievement Level III

Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III recognize that cells have structure and need food to carry out their function. These students recognize that organisms reproduce, pass on some traits to their offspring, and evolve over time. They classify organisms based on their characteristics and recognize that relationships exist between organisms and their physical environment.

Achievement Level IV

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Students performing at Achievement Level IV identify cell structures and functions. These students identify patterns of heredity. They classify organisms based on their characteristics and identify some adaptations necessary for life functions. They recognize relationships between organisms and their physical environment and that they are necessary for survival.



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Appendix F: Sample Individual Student Report



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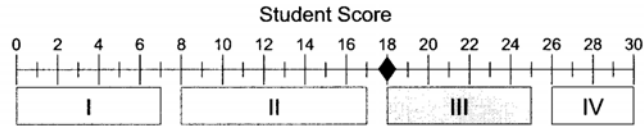
NCEXTEND1 2008 Administration
Alternate Assessment
Individual Student Report
Public Schools of North Carolina

Student
Grade Level 10
School Name
System Name

Scores are based on the tested content of the North Carolina *Standard Course of Study* Extended Content Standards and alternate academic achievement standards.

Reading

Student Score: 18
Achievement Level: III
Possible Score Range: 0-30

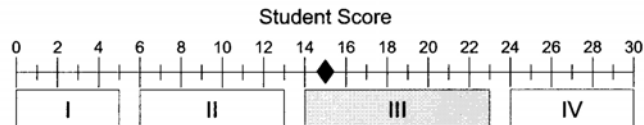


Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at Achievement Level III consistently demonstrate grade level reading skills required in the North Carolina Extended Content Standards at Grade 10. Students show evidence of comprehension of a variety of expressive, informational, and argumentative world texts/events. They determine problems/solutions, cause/effect, and their relationships in the world and across texts. Students examine relationships of events, ideas, concepts, and/or criteria while using visual representations to increase the understanding of texts.

Mathematics

Student Score: 15
Achievement Level: III
Possible Score Range: 0-30

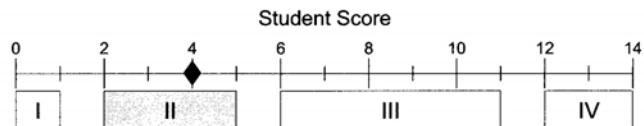


Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Students performing at this level demonstrate flexibility in solving mathematical problems by selecting strategies and using appropriate technology. They consistently solve problems using two- and three-dimensional shapes, including perimeter, area, and volume. They can demonstrate transformations of figures in a plane. They use graphs and data to solve problems. They consistently solve two-step equations.

Writing

Student Score: 4
Achievement Level: II
Possible Score Range: 0-14



Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successfully at the next grade level.

Students performing at Achievement Level II inconsistently demonstrate writing skills specified in the North Carolina Extended Content Standards at Grade 10. Students provide limited evidence of using information to determine problems, solutions, causes and effects, and their relationships when creating written products. They demonstrate an occasional understanding of conventions (grammar, usage, and mechanics).

Science

Assessment was administered and results will be available fall 2008

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