



Approved \_\_\_\_\_ Disapproved \_\_\_\_\_ Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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**NORTH CAROLINA STATE BOARD OF EDUCATION  
Policy Manual**

**Policy Identification**

**Priority:** High Student Performance

**Category:** Course for Credit

**Policy ID Number:** HSP-M-001

**Policy Title:** Policy defining "Course for Credit"

**Current Policy Date:** 05/03/2007

**Other Historical Information:** Previous board dates: 05/05/1988, 08/02/2001, 02/07/2002, 12/05/2002, 07/01/2004,11/04/2004

**Statutory Reference:** GS 115C-81

**Administrative Procedures Act (APA) Reference Number and Category:**

A credit course, one for which credit toward high school graduation is awarded and which qualifies as part of the instructional day:

- must consist of 150 clock hours of instruction in a traditional schedule or
- must consist of a minimum of 135 clock hours of instruction in a block schedule; developed curriculum guides, or Advanced Placement syllabi in which high school students are enrolled; and
- must be directed by a teacher.

Public University, Community College, and Private College Courses

- Courses taken for high school graduation requirements at community colleges and private or public colleges/universities are exempt from the 135 or 150 instructional hours with the exception of the following courses required for high school graduation, which must be taken at the high school or middle school where indicated:
  - English I, II, III, IV;
  - Algebra I, Algebra II, Geometry, and any higher level mathematics course with Algebra II as the prerequisite that will be used to fulfill the fourth mathematics requirement or Integrated Mathematics I, II, III (These mathematics courses may be taken in middle school.)
  - Biology, Earth/Environmental Science, and a physical science course that is used to fulfill the third science requirement;
  - Civics and Economics, US History, World Studies;
  - first year of a Second Language (This Second Language course may be taken in middle school.);

- second year of the same Second Language (This Second Language course may be taken in the middle school.); and
- one credit of Health/Physical Education.
- Beginning in the 2007-08 school year, students who pass mathematics or foreign language courses during grade 6-8 that are described in the *North Carolina Standard Course of Study* for grades 9-12 must achieve level III or IV on an EOC, if available, to meet that high school graduation requirement. High school mathematics and foreign language courses taken in grades 6-8 which do not have an EOC shall use high school course codes and shall be aligned to the *North Carolina Standard Course of Study* for grades 9-12. The courses will count toward graduation requirements, but the students' GPA will be computed with courses taken during the high school years.
- Students are strongly encouraged to complete at least one unit of mathematics credit in their final year of high school.
- Each local superintendent may grant a waiver to allow students to take the courses listed above at the Public University, Community College, and Private College and exempt them from the 135 or 150 instructional hour requirement, if these courses are not available to the student at his or her local high school. Courses taken at a Community College that have a corresponding end-of-course assessment at the high school require that the assessment be taken.
- Each local superintendent shall ensure that all required and elective courses have sufficient rigor, breadth, and depth to be awarded high school credit.

An online course qualifies for course credit if it meets the following requirements:

- The NC Standard Course of Study competency goals and objectives must be adopted, where available. Nationally validated standards for AP and IB must be used, where available.
- In the absence of a Standard Course of Study curriculum, the course must be designed such that a typical student would take 135-150 hours to complete. The principal, in consultation with a teacher certified in that content area, is ultimately accountable for determining whether the course is of sufficient depth and breadth and meets the state and/or nationally developed criteria for awarding credit.
- Where available, end-of-grade tests, end-of-course tests, and post assessment must be used as an indicator of student mastery.
- Where statewide assessments are not available, the course must be DPI staff-and/or peer-evaluated before posting.

Credit may not be awarded for school bus driving, office assistance, teacher assistance, or laboratory assistance.

## High School Science Courses Taken in the Middle School: Considerations for Extending Policy Beyond Mathematics and Foreign Language

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### History

Current State Board of Education Policy HSP-M-001 adopted by the State Board of Education in May, 2007

- Beginning in the 2007-08 school year, students who pass mathematics or foreign language courses during grade 6-8 that are described in the *North Carolina Standard Course of Study* for grades 9-12 must achieve level III or IV on an EOC, if available, to meet that high school graduation requirement. High school mathematics and foreign language courses taken in grades 6-8 which do not have an EOC shall use high school course codes and shall be aligned to the *North Carolina Standard Course of Study* for grades 9-12. The courses will count toward graduation requirements, but the students' GPA will be computed with courses taken during the high school years.
  - Students are strongly encouraged to complete at least one unit of mathematics credit in their final year of high school.
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### Issues with Existing Policy

#### Timeline of Policy

- May 2007 - Policy adopted for implementation School Year 2007-08
    - Communication to Field—May 2007 and beyond
    - Registration for School Year 2007-08 had already occurred
  - Development of course codes to support policy
    - (May- September) Discussions on best way to code mathematics and second language course to support policy
  - Communications sent to field September 2007
    - After registration had occurred
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### Guiding Principles for High School Courses Taken at Middle School

The following principles should be considered in allowing/offering high school courses to be taken in middle school:

- **Access and Equity** - Acceleration provides a cumulative educational advantage. Numerous studies have shown that opportunities for accelerated and rigorous courses have been inequitably distributed in the past. Districts should establish a coherent plan, extending across grade levels, which would enable a higher proportion of students to benefit from accelerated study. By treating all middle school students as potential participants, they would expose all students to the documented benefits of a rigorous and challenging curriculum. LEAs accelerating students in any discipline should be required to review their policies and practices to be sure that they are promoting equity in access to these courses and that there are opportunities to enter advanced courses even for students who may not have been accelerated in the earlier grades.
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## High School Science Courses Taken in the Middle School: Considerations for Extending Policy Beyond Mathematics and Foreign Language

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A further equity consideration is to ensure that middle schools offering high school courses have the resources to ensure that the courses are substantially equivalent to the same courses offered at the high school. This includes facilities, materials, participation in district-wide common assessments, and teacher opportunities for professional development. Middle school teachers should plan with high school teachers of the same courses to ensure equitable opportunities to learn and appropriate preparation for advanced courses are offered to both groups of students.

- **Teacher Preparation** - Teachers of high school courses at the middle school should be licensed and fully qualified to teach the high school course.
- **Balanced Middle School Curriculum** - Research studies have shown that middle school students benefit from a balanced curriculum including adequate time for all disciplines while testing incentives have led to overemphasis on the tested subjects. It is important to accomplish acceleration by accelerating and compacting the middle school curriculum rather than omitting subjects or topics which will be needed later.
- **Rigor** – When making decisions to accelerate students in middle school, the LEA should plan across schools and grade levels to ensure the rigor of the high school program throughout and including the final year. Numerous studies show the importance of rigor in the final year of high school to be an important factor in college success.

### Rationale

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#### SCIENCE

Rigorous high school science courses particularly Chemistry, Physics and AP Sciences are associated with readiness for and success in college-level work in several recent studies (ACT, 2007; Adelman, 2006). Yet, many North Carolina students do not take these courses.

The intent of adopting a policy to allow high school science courses to be taken at the middle school should be to increase enrollment in physics, chemistry, and other advanced science courses. Currently, three science courses are required for graduation and many students do not have room in their schedules to pursue more science. Others have not had their interest in science encouraged. Depending on how a new policy allowing high school science in middle school is written and implemented, it could have a strong impact on future enrollments in higher level science in high school and beyond. Allowing some high school courses to be taken for high school credit at middle school while continuing to require three science courses in high school will be most likely to produce the stronger globally competitive scientific literacy that is needed in the 21<sup>st</sup> century.

## **High School Science Courses Taken in the Middle School: Considerations for Extending Policy Beyond Mathematics and Foreign Language**

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**Current Programs** In North Carolina there are relatively few middle grades students taking high school level science courses compared to the numbers taking Algebra, but these courses are offered to some middle school students.

A small number of magnet middle schools offer Earth/Environmental Science to their higher performing eighth grade students. There are also eighth grade students taking physical science, a small group taking biology, and approximately 45 sixth, seventh, and eighth grade students taking chemistry.

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**Considerations for Implementation** Many of our middle schools have abandoned the balanced curriculum concept, opting instead to devote more instructional time to the tested areas of mathematics and reading. However, with end-of-grade science tests becoming operational in 2007-08, there will be pressure to increase focus on science. The principals who have been proactive in this effort should see reasonably acceptable achievement results from the first years of science testing. Those who have not dedicated sufficient instructional time to science may see lower science scores and ultimately devote more time and resources to this area. Without a strong preparation in elementary and middle school science, the majority of students will lack the background knowledge and experiences to be as successful as they could be in rigorous high school science courses.

Safeguards should be considered in four areas to ensure the quality and integrity of any high school courses offered in middle school. These are teacher preparation, laboratory facilities, instructional time and student assignment.

- **Teacher Preparation**—Teachers of high school science courses at the middle school should have the same license requirements and opportunities for further professional development in their content as those teaching the course at the high schools. Middle school science teachers should plan with the high school teachers of the same courses to ensure equitable opportunities to learn and appropriate preparation for advanced science courses are offered to both groups of students.
- **Laboratory Facilities**—A laboratory component requires adequate facilities to engage students in appropriate activities. This component is embedded in the goals and objectives of the North Carolina Standard Course of Study and a laboratory science course is part of the minimum entrance requirement for the University of North Carolina. Laboratory experiences are also required to prepare students for success in AP and IB science courses. Though a middle school science room does not necessarily have to mirror a high school lab, a safe learning environment should be provided with the proper equipment, including technology, to enable middle school students to complete the same or similar laboratory investigations as would be completed by high school students in the same course.

## **High School Science Courses Taken in the Middle School: Considerations for Extending Policy Beyond Mathematics and Foreign Language**

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- **Instructional Time**—High school courses offered in middle school should be held to the same standards as those offered at the high school. There should also be evidence that all students are given adequate opportunities to learn the Standard Course of Study for grade 6 – 8 in order to provide a solid foundation for students when they enroll in high school science courses.
  - **Student assignment**—Student assignment to advanced courses is often done haphazardly and reflects teacher and community cultural biases rather than best practices. Often perceived home environment is used as a proxy for achievement and those from wealthier families are more likely to be placed in accelerated courses than others with the same achievement scores. (Stone and Tuba, 1999; Stone, 1998) Middle schools accelerating students in any discipline should be required to review their policies and practices to be sure they are promoting equity in access to these courses.
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### **Recommendations**    Recommendations for offering High School Science Courses in Middle School:

- 1) Teachers should be licensed and fully qualified to teach the high school course.
- 2) High school science courses should be in addition to, not in place of, the middle school standard course of study in science which may however be compacted. The middle school students will still need to be fully prepared for the 8<sup>th</sup> grade end-of-grade science test required by NCLB.
- 3) The course may be used to meet a particular high school science course requirement (such as the requirement for a biology course).
- 4) Encourage 3 credits in science to be taken during the high school years including chemistry, physics, and other advanced courses.
- 5) Courses should meet the same assessment and time requirements as required for credit in high school courses. (i.e. EOCs, 135 hours, and local requirements such as common assessments, benchmark testing.)
- 6) Laboratory facilities should meet safety requirements and state and national guidelines for laboratory equipment and expendables to allow the same opportunities for laboratory work as the high school laboratories in the LEA.
- 7) High school courses should be open to all middle school students, not just a selected group.

## High School Science Courses Taken in the Middle School: Considerations for Extending Policy Beyond Mathematics and Foreign Language

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### References

- ACT (2007). Rigor at risk: Reaffirming quality in the high school curriculum. [Electronic Version]. Retrieved October 1, 2007 from [http://www.act.org/path/policy/pdf/rigor\\_report.pdf](http://www.act.org/path/policy/pdf/rigor_report.pdf)
- Adelman, C. (2006). The toolbox revisited: Paths to degree completion from high school through college. [Electronic Version]. U.S. Department of Education. Retrieved October 1, 2007 from: <http://www.ed.gov/rschstat/research/pubs/toolboxrevisit/toolbox.pdf>
- Stone, C. (1998). Leveling the playing field: An urban school system examines equity in access to mathematics curriculum [Electronic Version]. *Urban Review*, 30, 295-307. Retrieved September 10, 2007 from <http://www.springerlink.com/content/n6280183714v15j6/>.
- Stone, C. B., & Turba, R. (1999). School counselors using technology for advocacy [Electronic Version]. *Journal of Technology in Counseling*, 1. Retrieved September 10, 2007 from [http://jtc.colstate.edu/vol1\\_1/advocacy.htm](http://jtc.colstate.edu/vol1_1/advocacy.htm).

**EXECUTIVE SUMMARY**

**Title:** **Recommended Final Academic Achievement Standards (Cut Scores) and Achievement Level Descriptors for the NCEXTEND2 EOG Reading and Mathematics Grades 3-8 and Recommended Draft Achievement Level Descriptors for NCEXTEND2 EOG Science Grades 5 and 8**

**Type of Executive Summary:**

- Action       Action on First Reading       Discussion       Information

**Policy Implications:**

- Constitution \_\_\_\_\_  
 General Statute # \_\_\_\_\_  
 SBE Policy #HSP-C-026  
 SBE Policy Amendment  
 SBE Policy (New)  
 APA # \_\_\_\_\_  
 APA Amendment  
 APA (New)  
 Other NCLB Act of 2001

**Presenter(s):** Dr. Louis M. Fabrizio (Director, Accountability Services Division)

**Description:**

In accordance with the practice established after the national audit panel's review of the testing program in 2001, the recommended *final* academic achievement standards (cut scores) and achievement level descriptors for the NCEXTEND2 EOG reading and mathematics at grades 3-8 are being provided for adoption on first reading at the February 2008 meeting of the State Board of Education. The NCEXTEND2 EOG Reading and Mathematics were implemented initially as operational modified alternate assessments effective with the 2005-06 school year for students with disabilities who require the modified assessments in order to access the statewide testing program as required by the NCLB Act of 2001. Interim academic achievement standards (cut scores) for these tests were approved by the SBE for the 2005-06 and the 2006-07 school years pending the adoption of the final regulations by the USED. The final academic achievement standards (cut scores) and achievement level descriptors were generated by a group of panelists who were practicing ELA and mathematics educators in sessions held with Pearson Educational Measurement facilitating the sessions along with analyses and recommendations by NCDPI Test Development staff. The consequential data used to inform decisions about the final cut scores and descriptors for the NCEXTEND2 EOG Reading and Mathematics assessment were derived from the 2005-06 and the 2006-07 administrations of the assessments. After an extensive analysis of all of the data, the department will recommend the final academic achievement standards (cut scores) and achievement level descriptors for the NCEXTEND2 EOG Reading and Mathematics alternate assessments for students with disabilities who require the use of the NCEXTEND2, a modified alternate assessment, in order to access the statewide testing program. Recommended final standards and descriptors are to be effective with the 2007-08 school year. Revised achievement level cut scores and achievement level descriptors will be presented to the SBE for reading during the summer 2008 which is the first assessment year of the new curriculum cycle for ELA.

Additionally, the recommended *draft* achievement level descriptors for the NCEXTEND2 EOG science assessments at grades 5 and 8 are being provided for adoption on first reading at the February 2008 meeting of the State Board of Education. The draft descriptors are required as a part of the USED Peer Review Process which is scheduled to be held in March 2008. The NCEXTEND2 EOG science grades 5 and 8, modified alternate assessments, were implemented initially as a field test in 2005-06, as a pilot in 2006-07, and as an operational modified alternate assessments effective with the 2007-08 school year for students with disabilities who require the modified assessments in order to access the statewide testing program as required by the NCLB Act of 2001. Interim academic achievement standards (cut scores) and interim achievement level descriptors for these tests will be presented for approval by the SBE during the summer 2008 when the 2007-08 test administration data are collected for both grades. The recommended draft descriptors are to be replaced with the interim achievement level descriptors during the summer 2008.

The cut scores for NCEXTEND2 EOG Reading and Mathematics will be sent to the SBE members prior to the February SBE meeting.

**Resources:**

Staff psychometricians, other staff from Test Development Section at NCDPI, the test development staff at NCSU-TOPS, EC representatives, curriculum staff, and some representatives from other sections and divisions within the agency, a group of educators and practitioners, and facilitators from the Pearson Educational Measurement

**Input Process:**

Recommendation from educators in each content area as panelists during the sessions led by an external facilitator and/or as expert judges of student achievement during the test data collection, staff from the Test Development Section, test development staff at NCSU-TOPS, and staff from other sections and divisions in the department provided input into the recommendations.

**Stakeholders:**

Public school educators, the exceptional children's community, the ELL community, state and federal policy makers, parents, students, and the general public

**Timeline For Action:**

The department recommends that the final academic achievement standards (cut scores) and achievement level descriptors for NCEXTEND2 EOG Reading and Mathematics and the *draft* achievement level descriptors for NCEXTEND2 EOG Science be adopted on first reading at the February 2008 meeting of the SBE.

**Recommendations:**

The department recommends that the State Board amend policy HSP-C-026 and that the final academic achievement standards (cut scores) and achievement level descriptors for the NCEXTEND2 EOG Reading and Mathematics at grades 3-8 and the draft achievement level descriptors for the NCEXTEND2 EOG Science Grades 5 and 8 be approved as provided.

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Audiovisual equipment requested for the presentation:

- Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)

Specify: \_\_\_\_\_

- Audio Requirements (computer or other, except for PA system which is provided)

Specify: \_\_\_\_\_

- Document Camera (for transparencies or paper documents – white paper preferred)

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Motion By: \_\_\_\_\_

Seconded By: \_\_\_\_\_

Vote: Yes \_\_\_\_\_ No \_\_\_\_\_

Abstain \_\_\_\_\_

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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\*Person responsible for SBE agenda materials and SBE policy updates: Lucy Medlin, (919) 807-3771

**NORTH CAROLINA STATE BOARD OF EDUCATION  
Policy Manual**

**Policy Identification**

**Priority:** High Student Performance  
**Category:** ABCs Accountability Model  
**Policy ID Number:** HSP-C-026

**Policy Title:** ~~Interim~~ Achievement Level Ranges for the NCEXTEND2 EOG Reading and Mathematics (EOG) Reading Grades 3-8 and Science Grades 5 & 8

**Current Policy Date:** 10/12/2006

**Other Historical Information:** Previous Board Dates: 07/13/2006

**Statutory Reference:** GS 115C-174.11

**Administrative Procedures Act (APA) Reference Number and Category:** None

**\*\*\* Begin Policy \*\*\* (Do not tamper with this line)**

The ~~interim~~ achievement level ranges approved by the State Board of Education for the NCEXTEND2 ~~(EOG)~~ in Reading for use in the ABCs Accountability Program are as follows:

Subject	Grade	Level I	Level II	Level III	Level IV
Reading <u>(effective 2005-06)</u>	3	<del>≤125</del> -145	146-162	163-172	<del>≥173</del> -175
	4	<del>≤123</del> -145	146-161	162-171	<del>≥172</del> -175
	5	<del>≤120</del> -144	145-159	160-171	<del>≥172</del> -176
	6	<del>≤121</del> -144	145-159	160-173	<del>≥174</del> -177
	7	<del>≤122</del> -143	144-159	160-173	<del>≥174</del> -178
	8	<del>≤121</del> -143	144-158	159-172	<del>≥173</del> -178

The ~~interim~~ achievement level ranges approved by the State Board of Education for the NCEXTEND2 ~~(EOG)~~ in Mathematics for use in the ABCs Accountability Program are as follows:

Subject	Grade	Level I	Level II	Level III	Level IV
Mathematics <u>(effective 2005-06)</u>	3	<del>≤115</del> -147	148-158	159-167	<del>≥168</del> -170
	4	<del>≤120</del> -144	145-158	159-171	<del>≥172</del> -174
	5	<del>≤122</del> -143	144-158	159-170	<del>≥171</del> -174

	6	<del><math>\leq 122</math></del> -143	144-156	157-174	<del><math>\geq 175</math></del> - <del>180</del>
	7	<del><math>\leq 117</math></del> -143	144-155	156-177	<del><math>\geq 178</math></del> - <del>185</del>
	8	<del><math>\leq 118</math></del> -143	144-155	156-172	<del><math>\geq 173</math></del> - <del>185</del>

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area at grade level. Students performing at Achievement Level I demonstrate a need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 3. Students show little evidence of applying reading skills and strategies required to comprehend a variety of third grade level texts such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 emerging knowledge and skills in this subject area and are minimally prepared at grade-level. Students performing at Achievement Level II demonstrate emerging reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 3. Students may show limited evidence of literal comprehension of a variety of third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students inconsistently make basic inferences, draw simple conclusions, and locate information in a variety of texts, including simple charts, maps, and diagrams.

### **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 basic grade level knowledge and skills. Students performing at Achievement Level III demonstrate basic grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 3. Students can comprehend a variety of basic third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students can analyze and interpret text by making basic inferences, drawing simple conclusions, predicting outcomes, comparing and contrasting, and determining main idea. They also use basic text features and text structures to comprehend. Students may demonstrate simple character analysis, identify problems, and determine the meaning of some unfamiliar vocabulary in context.

### **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 this level demonstrate skills and knowledge beyond that required to be proficient at grade level. Students performing at Achievement Level IV demonstrate an application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 3. Students can comprehend a variety of third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students may extend ideas by connecting, integrating and analyzing information. They apply an understanding of text features and structures to comprehend. Students recognize familiar figurative language and understand author's word choice.

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area at grade level. Students performing at Achievement Level I demonstrate the need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 4. Students show little evidence of applying reading skills and strategies required to comprehend a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 emerging knowledge and skills in this subject area and are minimally prepared at grade level. Students performing at Achievement Level II demonstrate emerging reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 4. Students may show limited evidence of literal comprehension of a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students apply emerging knowledge of text structure and may make some connections to information. They may also draw simple conclusions, make simple predictions, and interpret information in a variety of texts that include basic graphs, charts, and maps.

### **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 basic grade level knowledge and skills. Students performing at Achievement Level III demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 4. Students can comprehend a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students may examine author's word choice and identify author's purpose. They utilize basic skills and strategies such as making straightforward inferences, drawing simple conclusions, comparing and contrasting, and determining main idea. They also use basic text features and text structures to comprehend. Students examine reasons for characters' actions, and can determine meaning of some unfamiliar vocabulary from in context.

### **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 this level demonstrate skills and knowledge beyond that required to be proficient at grade level. Students performing at Achievement Level IV demonstrate an application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 4. Students can comprehend a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students can make simple connections and integrate information from the text. They

can demonstrate an understanding of the text through concrete inferences, making connections, and drawing simple conclusions. Students also understand familiar figurative language and make judgments about author's word choice.

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area on grade level. Students performing at Achievement Level I demonstrate a need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 5. Students show little evidence of applying reading skills and strategies required to comprehend a variety of fifth grade level texts such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 emerging knowledge and skills in this subject area and are minimally prepared at grade level. Students performing at achievement Level II demonstrate emerging reading comprehension skills relative to those required in the North Carolina *Standard Course of Study* at grade 5. Students may show limited evidence of literal comprehension of a variety of fifth grade level texts such as fiction, literary and informational nonfiction, poetry and drama. Students apply knowledge of text structure to locate information for specific purposes. They may also draw simple conclusions, make basic inferences, and identify sequence of events and characters in a variety 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 this level demonstrate basic grade level knowledge and skills. Students performing at Achievement Level III demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 5. Students demonstrate basic comprehension of a variety of texts. Students can understand some figurative language. They can apply basic skills and strategies such as making simple predictions, making inferences, drawing conclusions, comparing and contrasting, and making connections. Students can determine reasons for characters' actions; as well as integrate information and ideas on a concrete level. They can also determine the meaning of some unfamiliar vocabulary in context.

### **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 this level demonstrate skills and knowledge beyond that required to be proficient at grade level. Students performing at Achievement Level IV demonstrate an application of reading comprehension skills required in the North Carolina *Standard Course of Study* at Grade 5. Students can comprehend a variety of fifth grade texts such as fiction, literary and informational nonfiction, poetry, and drama. Students examine relationships and extend ideas by connecting and integrating information within the entire text. They demonstrate an understanding of the text through the inferences and connections they make and the conclusions they draw. Students also recognize commonly used figurative language and understand author's craft.

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I demonstrate the need to develop reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 6. Students show little evidence of reading skills and strategies required to comprehend a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 inconsistent 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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 6. Students inconsistently show evidence of literal comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They may apply strategies such as determining meaning of unfamiliar vocabulary through context clues. Students may also make basic inferences, show evidence of utilizing text structure, recognize connections to prior knowledge, and apply reading strategies in a limited manner.

### **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 consistently demonstrate basic knowledge of grade level subject matter and skills and are prepared for the next grade level. Students performing at Achievement Level III demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 6. Students show evidence of literal comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students compare and contrast elements within text to make meaning based on evidence. Students may infer, draw conclusions, and determine author's purpose. They may recognize literary elements and different points of view.

### **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 this level consistently demonstrate the knowledge and skills in this subject area required to become proficient at the next grade level. Students performing at Achievement Level IV demonstrate application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 6. Students show evidence of comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students infer, draw

conclusions, and determine author's purpose. They apply information in a variety of situations, and analyze the effect of figurative language, author's craft, and literary elements.

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I demonstrate the need to develop reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 7. Students show little evidence of reading skills and strategies required to comprehend a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 inconsistent 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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 7. Students inconsistently show evidence of literal comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They may apply strategies such as determining meaning of unfamiliar vocabulary through context clues. Students may also make basic inferences, show evidence of utilizing text structure, recognize connections to prior knowledge, and apply reading strategies in a limited manner.

### **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 consistently demonstrate basic knowledge of grade level subject matter and skills and are prepared for the next grade level. Students performing at Achievement Level III demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 7. Students show evidence of literal comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students recognize organizational structure and relationships. Students compare and contrast elements within text to make meaning based on evidence. They may infer, draw conclusions, and determine author's purpose. They may recognize literary elements and different points of view.

### **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 this level consistently demonstrate knowledge and skills in this subject area required to become proficient at the next grade level. Students performing at Achievement Level IV demonstrate application of the reading comprehension skills required in the North Carolina *Standard*

Course of Study at grade 7. Students show evidence of comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They apply information in a variety of situations, and analyze the effect of figurative language, author's craft, and literary elements.

## **Recommended NCEXTEND2 EOG 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 this level demonstrate insufficient knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I demonstrate the need to develop reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 8. Students show little evidence of reading skills and strategies required to comprehend a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 inconsistent 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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 8. Students inconsistently show evidence of literal comprehension of a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They may apply strategies such as determining meaning of unfamiliar vocabulary through context clues. Students may make basic inferences, show evidence of utilizing text structure, recognize connections to prior knowledge, and apply reading strategies in a limited manner.

### **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 consistently demonstrate basic knowledge of grade level subject matter and skills and are prepared for the next grade level. Students performing at Achievement Level III demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 8. Students show evidence of literal comprehension of a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students compare and contrast elements within text to make meaning based on evidence. Students may infer, draw conclusions, and determine author's purpose. They may recognize literary elements and different points of view.

### **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 this level consistently demonstrate knowledge and skills in this subject area required to be proficient at the next grade level. Students performing at Achievement Level IV demonstrate application of the reading comprehension skills required in the North Carolina *Standard*

Course of Study at grade 8. Students show evidence of comprehension of a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students infer, draw conclusions, and determine author's purpose. They apply information in a variety of situations, and analyze the effect of figurative language, author's craft, and literary elements.

## **Recommended NCEXTEND2 EOG Grade 3 Mathematics--Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy; and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies. In grade three, students are given the opportunity to develop the following skill. Expectations include number sense for whole numbers through 9,999. Instruction includes multiplication facts and single digit multiplication and division. Third graders compare, order, and represent rational numbers (halves, fourths, thirds, sixths, and eighths) concretely and symbolically. They use appropriate vocabulary to compare, describe, and classify polygons and polyhedra (two- and three- dimensional shapes). Students measure length, capacity, weight, time, and temperature. They identify, create, and extend patterns. In third grade, students read, collect, organize, and display data using a variety of graphs. Third graders use the rectangular coordinate system to graph and identify points. They use symbols to represent unknown quantities in number sentences and to solve simple equations. Students solve problems using a variety of strategies, including listing arrangements and combinations of up to three items. Third graders apply these concepts, as well as those developed in previous years.

### **Achievement Level II**

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

Students performing at Achievement Level II show limited evidence of conceptual understanding and computational accuracy and sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies. In grade three, students are given the opportunity to develop the following skills. Expectations include number sense for whole numbers through 9,999. Instruction includes multiplication facts and single digit multiplication and division. Third graders compare, order, and represent rational numbers (halves, fourths, thirds, sixths, and eighths) concretely and symbolically. They use appropriate vocabulary to compare, describe, and classify polygons and polyhedra (two- and three- dimensional shapes). Students measure length, capacity, weight, time, and temperature. They identify, create, and extend patterns. In third grade, students read, collect, organize, and display data using a variety of graphs. Third graders use the rectangular coordinate system to graph and identify points. They use symbols to represent unknown quantities in number sentences and to solve simple equations. Students solve problems using a variety of strategies, including listing arrangements and combinations of up to three items. Third graders apply these concepts, as well as those developed in previous years.

### **Achievement Level III**

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

Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use basic problem-solving strategies. In grade three, students are given the opportunity to develop the following skills. Expectations include number sense for whole numbers through 9,999. Instruction includes multiplication facts and single digit multiplication and division. Third graders compare, order, and represent rational numbers (halves, fourths, thirds, sixths, and eighths) concretely and symbolically. They use appropriate vocabulary

to compare, describe, and classify polygons and polyhedra (two- and three- dimensional shapes). Students measure length, capacity, weight, time, and temperature. They identify, create, and extend patterns. In third grade, students read, collect, organize, and display data using a variety of graphs. Third graders use the rectangular coordinate system to graph and identify points. They use symbols to represent unknown quantities in number sentences and to solve simple equations. Students solve problems using a variety of strategies, including listing arrangements and combinations of up to three items. Third graders apply these concepts, as well as those developed in previous years.

#### **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 commonly show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade three, students are given the opportunity to develop the following skills. Expectations include number sense for whole numbers through 9,999. Instruction includes multiplication facts and single digit multiplication and division. Third graders compare, order, and represent rational numbers (halves, fourths, thirds, sixths, and eighths) concretely and symbolically. They use appropriate vocabulary to compare, describe, and classify polygons and polyhedra (two- and three- dimensional shapes). Students measure length, capacity, weight, time, and temperature. They identify, create, and extend patterns. In third grade, students read, collect, organize, and display data using a variety of graphs. Third graders use the rectangular coordinate system to graph and identify points. They use symbols to represent unknown quantities in number sentences and to solve simple equations. Students solve problems using a variety of strategies, including listing arrangements and combinations of up to three items. Third graders apply these concepts, as well as those developed in previous years.

## **Recommended NCEXTEND2 EOG Grade 4 Mathematics--Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at this level demonstrate insufficient knowledge and skills in this subject area. Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy; and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies. In grade four, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.01 through 99,999 and fluency with multiplication and division using multi-digit numbers. They add and subtract rational numbers (halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers) with like denominators. Students solve problems involving the perimeter of plane figures and the area of rectangles. In fourth grade, students identify, predict, and describe the results of transformations of plane figures. They collect, organize, analyze, and display data using a variety of graphs. Students use range, median, and mode to describe a set of data. Fourth graders design and use simple experiments to investigate, discuss, and describe the probability of an event. Students use symbols to represent simple proportional relationships and solve problems. They use the order of operations to verify and translate mathematical relationships with symbols, words, numbers, and pictures. Fourth-graders apply these concepts as well as those developed in previous years.

### **Achievement Level II**

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

Students performing at this level inconsistently demonstrate knowledge and skills in this subject area. Students performing at Achievement Level II show limited evidence of conceptual understanding and computational accuracy and sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies. In grade four, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.01 through 99,999 and fluency with multiplication and division using multi-digit numbers. They add and subtract rational numbers (halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers) with like denominators. Students solve problems involving the perimeter of plane figures and the area of rectangles. In fourth grade, students identify, predict, and describe the results of transformations of plane figures. They collect, organize, analyze, and display data using a variety of graphs. Students use range, median, and mode to describe a set of data. Fourth graders design and use simple experiments to investigate, discuss, and describe the probability of an event. Students use symbols to represent simple proportional relationships and solve problems. They use the order of operations to verify and translate mathematical relationships with symbols, words, numbers, and pictures. Fourth-graders apply these concepts as well as those developed in previous years.

### **Achievement Level III**

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

Students performing at this level consistently demonstrate basic knowledge and skills in this subject area. Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use basic problem-solving

strategies. In grade four, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.01 through 99,999 and fluency with multiplication and division using multi-digit numbers. They add and subtract rational numbers (halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers) with like denominators. Students solve problems involving the perimeter of plane figures and the area of rectangles. In fourth grade, students identify, predict, and describe the results of transformations of plane figures. They collect, organize, analyze, and display data using a variety of graphs. Students use range, median, and mode to describe a set of data. Fourth graders design and use simple experiments to investigate, discuss, and describe the probability of an event. Students use symbols to represent simple proportional relationships and solve problems. They use the order of operations to verify and translate mathematical relationships with symbols, words, numbers, and pictures. Fourth-graders apply these concepts as well as those developed in previous years.

#### **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 this level consistently demonstrate knowledge and skills in this subject area. Students performing at Achievement Level IV commonly show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade four, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.01 through 99,999 and fluency with multiplication and division using multi-digit numbers. They add and subtract rational numbers (halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers) with like denominators. Students solve problems involving the perimeter of plane figures and the area of rectangles. In fourth grade, students identify, predict, and describe the results of transformations of plane figures. They collect, organize, analyze, and display data using a variety of graphs. Students use range, median, and mode to describe a set of data. Fourth graders design and use simple experiments to investigate, discuss, and describe the probability of an event. Students use symbols to represent simple proportional relationships and solve problems. They use the order of operations to verify and translate mathematical relationships with symbols, words, numbers, and pictures. Fourth-graders apply these concepts as well as those developed in previous years.

## **Recommended NCEXTEND2 EOG Grade 5 Mathematics—Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at this level demonstrate insufficient knowledge and skills in this subject area. Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy; and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies. In grade five, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.001 through 999,999 and fluency in adding, subtracting, comparing and ordering fractions and decimals. They use appropriate tools to identify, estimate, and measure the angles of plane figures, including the sums of interior angles. Students identify, define, and describe the properties of plane figures, including parallelism, perpendicularity, and lengths of sides and diagonals. Students identify, create, generalize, and extend patterns. To solve problems, fifth graders collect, organize, analyze, and display data using a variety of graphs. They use range, median, and mode to describe multiple sets of data. Students use algebraic expressions to solve one-step equations and inequalities. They identify, describe, and analyze situations with constant or varying rates of change.

### **Achievement Level II**

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

Students performing at this level inconsistently demonstrate knowledge and skills in this subject area. Students performing at Achievement Level II show limited evidence of conceptual understanding and computational accuracy and sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies. In grade five, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.001 through 999,999 and fluency in adding, subtracting, comparing and ordering fractions and decimals. They use appropriate tools to identify, estimate, and measure the angles of plane figures, including the sums of interior angles. Students identify, define, and describe the properties of plane figures, including parallelism, perpendicularity, and lengths of sides and diagonals. Students identify, create, generalize, and extend patterns. To solve problems, fifth graders collect, organize, analyze, and display data using a variety of graphs. They use range, median, and mode to describe multiple sets of data. Students use algebraic expressions to solve one-step equations and inequalities. They identify, describe, and analyze situations with constant or varying rates of change.

### **Achievement Level III**

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

Students performing at this level consistently demonstrate basic knowledge and skills in this subject area. Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use basic problem-solving strategies. In grade five, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.001 through 999,999 and fluency in adding, subtracting, comparing and ordering fractions and decimals. They use appropriate tools to identify, estimate, and measure the angles of plane figures, including the sums of interior angles. Students identify, define, and describe the properties of plane figures, including parallelism, perpendicularity, and lengths of sides and

diagonals. Students identify, create, generalize, and extend patterns. To solve problems, fifth graders collect, organize, analyze, and display data using a variety of graphs. They use range, median, and mode to describe multiple sets of data. Students use algebraic expressions to solve one-step equations and inequalities. They identify, describe, and analyze situations with constant or varying rates of change.

#### **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 this level consistently demonstrate knowledge and skills in this subject area. Students performing at Achievement Level IV commonly show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade five, students are given the opportunity to develop the following skills. Expectations include number sense for rational numbers 0.001 through 999,999 and fluency in adding, subtracting, comparing and ordering fractions and decimals. They use appropriate tools to identify, estimate, and measure the angles of plane figures, including the sums of interior angles. Students identify, define, and describe the properties of plane figures, including parallelism, perpendicularity, and lengths of sides and diagonals. Students identify, create, generalize, and extend patterns. To solve problems, fifth graders collect, organize, analyze, and display data using a variety of graphs. They use range, median, and mode to describe multiple sets of data. Students use algebraic expressions to solve one-step equations and inequalities. They identify, describe, and analyze situations with constant or varying rates of change.

## **Recommended NCEXTEND2 EOG Grade 6 Mathematics—Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies. In grade six, students are exposed to but show minimal proficiency in the following concepts: Add, subtract, multiply, and divide non-negative rational numbers. Students compare, order, and estimate with rational numbers. They develop fluency in the use of factors, multiples, exponential notation, and prime factorization. Students identify and use properties of plane and three-dimensional figures to solve problems. They develop fluency with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems. They apply grade six concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level II**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area and are not yet prepared for the next grade level. Students performing at Achievement Level II exhibit inconsistent performance and show limited evidence of conceptual understanding. They have difficulty applying problem-solving strategies in unfamiliar situations. In grade six, students are exposed to but show limited proficiency in the following concepts: Add, subtract, multiply, and divide non-negative rational numbers. Students compare, order, and estimate with rational numbers. They develop fluency in the use of factors, multiples, exponential notation, and prime factorization. Students identify and use properties of plane and three-dimensional figures to solve problems. They develop fluency with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems. They apply grade six concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level III**

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

Students performing at this level consistently demonstrate basic knowledge of grade level subject matter and skills and are minimally prepared for the next grade level. Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies. In grade six, students are exposed to, and show basic proficiency in the following concepts: add, subtract, multiply, and divide non-negative rational numbers. Students compare, order, and estimate with rational numbers. They develop fluency in the use of factors, multiples, exponential notation, and prime factorization. Students identify and use properties of plane and three-dimensional figures to solve problems. They develop fluency with counting strategies and solve problems by determining the probability of simple, compound, dependent,

and independent events. They simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems. They apply grade six concepts as well as those developed in previous years to solve relevant and authentic problems.

#### **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 this level consistently perform in a manner to be prepared for the next grade level. Students performing at Achievement Level IV show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade six, students are exposed to and show consistent proficiency in the following concepts: add, subtract, multiply, and divide non-negative rational numbers. Students compare, order, and estimate with rational numbers. They develop fluency in the use of factors, multiples, exponential notation, and prime factorization. Students identify and use properties of plane and three-dimensional figures to solve problems. They develop fluency with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems. They apply grade six concepts as well as those developed in previous years to solve relevant and authentic problems.

## **Recommended NCEXTEND2 EOG Grade 7 Mathematics—Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies. In grade seven, students are exposed to, but show minimal proficiency in the following concepts: Compare, order, estimate, and compute with rational numbers. They solve problems involving similarity, scale drawings, surface area, and volume. Seventh graders graph data and use measures of central tendency and variability to describe and analyze sets of data. They use multiple representations to investigate linear relationships. Students use linear equations and inequalities, ratios, proportions, and percents to represent relationships and solve problems. They apply grade seven concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level II**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area and are not yet prepared for the next grade level. Students performing at Achievement Level II exhibit inconsistent performance and show limited evidence of conceptual understanding. They have difficulty applying problem-solving strategies in unfamiliar situations. In grade seven, students are exposed to, but show limited proficiency in the following concepts: Compare, order, estimate, and compute with rational numbers. They solve problems involving similarity, scale drawings, surface area, and volume. Seventh graders graph data and use measures of central tendency and variability to describe and analyze sets of data. They use multiple representations to investigate linear relationships. Students use linear equations and inequalities, ratios, proportions, and percents to represent relationships and solve problems. They apply grade seven concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level III**

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

Students performing at this level consistently demonstrate basic knowledge of grade level subject matter and skills and are minimally prepared for the next grade level. Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of basic problem-solving strategies. In grade seven, students are exposed to and show basic proficiency in the following concepts: compare, order, estimate, and compute with rational numbers. They solve problems involving similarity, scale drawings, surface area, and volume. Seventh graders graph data and use measures of central tendency and variability to describe and analyze sets of data. They use multiple representations to investigate linear relationships. Students use linear equations and inequalities, ratios, proportions, and percents to represent relationships and solve problems. They apply grade seven concepts as well as those developed in previous years to solve relevant and authentic problems.

#### **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 this level consistently perform in a manner to be prepared for the next grade level. Students performing at Achievement Level IV show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade seven, students are exposed to and show proficiency in the following concepts: compare, order, estimate, and compute with rational numbers. They solve problems involving similarity, scale drawings, surface area, and volume. Seventh graders graph data and use measures of central tendency and variability to describe and analyze sets of data. They use multiple representations to investigate linear relationships. Students use linear equations and inequalities, ratios, proportions, and percents to represent relationships and solve problems. They apply grade seven concepts as well as those developed in previous years to solve relevant and authentic problems.

## **Recommended NCEXTEND2 EOG Grade 8 Mathematics—Achievement Level Descriptors**

### **Achievement Level I**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area to be successful at the next grade level. Students performing at Achievement Level I show minimal conceptual understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies. In grade eight, students are exposed to, but show minimal proficiency in the following concepts: Develop the concept of and make estimates with irrational numbers. Students use the Pythagorean Theorem and apply concepts of indirect measurement to solve problems. Eighth graders represent data on graphs and approximate lines of best fit for scatter plots. Students develop an understanding of functions and write equations for linear relationships. They use linear equations and inequalities to solve problems and justify solutions. They apply grade eight concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level II**

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

Students performing at this level demonstrate insufficient grade-level knowledge and skills in this subject area and are not yet prepared for the next grade level. Students performing at Achievement Level II exhibit inconsistent performance and show limited evidence of conceptual understanding. They have difficulty applying problem-solving strategies in unfamiliar situations. In grade eight, students are exposed to, but show limited proficiency in the following concepts: Develop the concept of and make estimates with irrational numbers. Students use the Pythagorean Theorem and apply concepts of indirect measurement to solve problems. Eighth graders represent data on graphs and approximate lines of best fit for scatter plots. Students develop an understanding of functions and write equations for linear relationships. They use linear equations and inequalities to solve problems and justify solutions. They apply grade eight concepts as well as those developed in previous years to solve relevant and authentic problems.

### **Achievement Level III**

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

Students performing at this level consistently demonstrate basic knowledge of grade level subject matter and skills and are minimally prepared for the next grade level. Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of basic problem-solving strategies. In grade eight, students are exposed to and show basic proficiency in the following concepts: develop the concept of and make estimates with irrational numbers. Students use the Pythagorean Theorem and apply concepts of indirect measurement to solve problems. Eighth graders represent data on graphs and approximate lines of best fit for scatter plots. Students develop an understanding of functions and write equations for linear relationships. They use linear equations and inequalities to solve problems and justify solutions. They apply grade eight concepts as well as those developed in previous years to solve relevant and authentic problems.

### **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 this level consistently perform in a manner to be prepared for the next grade level. Students performing at Achievement Level IV show conceptual understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies. In grade eight, students are exposed to and show proficiency in the following concepts: develop the concept of and make estimates with irrational numbers. Students use the Pythagorean Theorem and apply concepts of indirect measurement to solve problems. Eighth graders represent data on graphs and approximate lines of best fit for scatter plots. Students develop an understanding of functions and write equations for linear relationships. They use linear equations and inequalities to solve problems and justify solutions. They apply grade eight concepts as well as those developed in previous years to solve relevant and authentic problems.

## **NCEXTEND2 EOG Science Grade 5 Achievement Level Descriptors (Draft)**

### **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 demonstrate an insufficient knowledge and skills in this subject area on grade level. Students show little evidence of the understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 demonstrate emerging knowledge and skills in this subject area and are minimally prepared at grade level. Students show limited understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 demonstrate basic grade level knowledge and skills. Students demonstrate an adequate level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 consistently demonstrate skills and knowledge at grade level. Students demonstrate a high level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

## **NCEXTEND2 EOG Science Grade 8 Achievement Level Descriptors (Draft)**

### **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 demonstrate insufficient knowledge and skills in this subject area to be successful at the next grade level. Students show little evidence of the understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 demonstrate emerging knowledge and skills in this subject area and are minimally prepared at grade level. Students show limited understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 demonstrate basic grade level knowledge and skills. Students demonstrate an adequate level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 consistently demonstrate skills and knowledge at grade level. Students demonstrate a high level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

**EXECUTIVE SUMMARY**

**Title:** Recommended Interim Academic Achievement Standards (Cut Scores) and Achievement Level Descriptors for the EOC Tests of Science (Physical Science, Biology, Chemistry, and Physics) and Recommended Final Academic Achievement Standards (Cut Scores) and Achievement Level Descriptors for the EOC Test of Algebra II

**Type of Executive Summary:**

- Action       Action on First Reading       Discussion       Information

**Policy Implications:**

- Constitution \_\_\_\_\_  
 General Statute # \_\_\_\_\_  
 SBE Policy #HSP-C-010  
 SBE Policy Amendment  
 SBE Policy (New)  
 APA # \_\_\_\_\_  
 APA Amendment  
 APA (New)  
 Other NCLB Act of 2001

**Presenter(s):** Dr. Louis M. Fabrizio (Director, Accountability Services Division)

**Description:**

In accordance with the practice established after the national audit panel's review of the testing program in 2001, the recommended *interim* academic achievement standards (cut scores) for the revised EOC tests of Physical Science, Biology, Chemistry, and Physics are being provided for adoption on first reading at the February 2008 meeting of the State Board of Education. The revised EOC tests were implemented effective with the 2007-08 school year to measure the revised curriculum in the area of science. The standards are being set using data from the Contrasting Groups method of standard setting using data (teacher judgments and student performance data) generated from fall semester 2007. Final standards for the science EOC tests will be presented to the SBE for approval in the early fall of 2008. The recommended interim standards are to be effective for the 2007-08 school year only.

Furthermore, the recommended *final* academic achievement standards (cut scores) and achievement level descriptors for the EOC test of Algebra II are being provided for adoption on first reading at the February 2008 meeting of the State Board of Education. These revised EOC tests are to be implemented effective with the 2007-08 school year due to the shortening of the test. The final academic achievement standards (cut scores) and achievement level descriptors were generated from data generated from the fall 2007 data collection of teacher judgment and student performance. The cut scores were generated using information from several sources, including the Contrasting Groups method and the Item-Mapping (bookmarking) procedure. The recommended final standards and descriptors are to be effective with the 2007-08 school year.

Because the cut scores for these assessments will be based on fall block data, the actual changes in policy for the cut scores will be presented at the SBE meeting.

**Resources:**

Staff psychometricians, other staff from Test Development Section at NCDPI, the test development staff at NCSU-TOPS, EC representatives, curriculum staff, some representatives from other sections and divisions within the agency, a group of educators and practitioners in the respective subjects, and an external facilitator

**Input Process:**

Recommendation from educators in each content area as panelists during the sessions led by an external facilitator and/or as expert judges of student achievement during the test data collection, staff from the Test Development Section, test development staff at NCSU-TOPS, and staff from other sections and divisions in the department provided input into the recommendation.



**NORTH CAROLINA STATE BOARD OF EDUCATION  
Policy Manual**

**Policy Identification**

**Priority:** High Student Performance

**Category:** ABCs Accountability Model

**Policy ID Number:** HSP-C-010

**Policy Title:** Policy setting the academic achievement standards (cut scores) and Achievement Level Descriptors for the end-of-~~tests/course tests, ABCs Model~~

**Current Policy Date:** 12/06/2007

**Other Historical Information:** Previous board dates: 09/04/1997, 12/03/1998, 11/04/2004, 02/02/2006, 03/02/06, 1/31/07, 05/03/2007, 11/01/2007

**Statutory Reference:**

**Administrative Procedures Act (APA) Reference Number and Category:**

**\*\*\* Begin Policy \*\*\* (Do not tamper with this line)**

The following academic achievement-standards and achievement level descriptors for end-of-course multiple-choice assessments have been approved by the State Board of Education for use in the ABCs Accountability Program:

Achievement Level Ranges for North Carolina  
End-of-Course Tests

Test	Level I	Level II	Level III	Level IV
Algebra I (edition prior to 2006-07)	less than or equal to 44	45-54	55-65	greater than or equal to 66
Algebra I (Interim for 2006-07) (Final effective 2007-08)	less than or equal to 139	140-147	148-157	greater than or equal to 158

English I (edition prior to 2006-07)	less than or equal to 42	43-51	52-60	greater than or equal to 61
English I (Interim for 2006-07) (Final effective 2007-08)	less than or equal to 137	138-145	146-156	greater than or equal to 157
Biology	less than or equal to 46	47-54	55-64	greater than or equal to 65
U.S. History (Interim for 2005-06)	less than or equal to 139	140-149	150-159	greater than or equal to 160
U.S. History (for 2006-07 and beyond)	less than or equal to 139	140-148	149-159	greater than or equal to 160
Civics & Economics (Interim for 2005-06)	less than or equal to 139	140-148	149-158	greater than or equal to 159
Civics & Economics (for 2006-07 and beyond)	less than or equal to 140	141-147	148-159	greater than or equal to 160
Algebra II (edition prior to 2006-07)	less than or equal to 45	46-57	58-68	greater than or equal to 69
Algebra II (Interim for 2006-07)	less than or equal to 138	139-146	147-157	greater than or equal to 158
Chemistry	less than or equal to 47	48-55	56-64	greater than or equal to 65
Geometry (edition prior to 2006-07)	less than or equal to 45	46-56	57-66	greater than or equal to 67
Geometry (Interim for 2006-07) (Final effective 2007-08)	less than or equal to 138	139-147	148-157	greater than or equal to 158
Physics	less than or equal to 42	43-51	52-62	greater than or equal to 63
Physical Science	less than or equal to 43	44-53	54-63	greater than or equal to 64

## **Achievement Level Descriptors--Algebra I EOC Test**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often responds with inappropriate answers or procedures.

Students at this level are able to display data in a matrix; identify and use an element in a given matrix; add and subtract matrices; apply the laws of exponents to monomials; and add and subtract basic polynomials. Students are able to solve single-step equations and inequalities.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in: conceptual understanding, computational accuracy, and in ability to respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Students at this level are able to perform basic matrix operations and interpretations; perform direct substitutions in functions and formulas; simplify formulas using order of operations; identify the greatest common factor of a polynomial; and multiply simple binomials. Students are able to use and solve two-step equations and inequalities.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding and computational accuracy, and they respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students at this level are able to write and solve linear equations; create linear models; apply and interpret constants and coefficients; understand the concepts of parallel, perpendicular and the equation of a line; solve systems of equations; factor and solve using polynomials; and use exponential and quadratic functions to solve problems. Students are able to model and solve multi-step equations and inequalities.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, computational accuracy, and ability to respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

Students at this level understand the translations of linear equations; successfully solve problems in the context of real-world situations; and interpret change in the slope, y-intercept, coefficients and constants.

Level IV students are able to model and solve multi-step equations and inequalities in the context of multi-concept application problems.

## **Achievement Level Descriptors--Algebra II EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, accurate computation, and responding with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

## **Algebra II End-of-Course Test—Achievement Level Descriptors**

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

Students at this level have difficulty applying most algebraic concepts. They have moderate success working one-step problems and those requiring routine calculator skills. The lack of computational and reasoning skills at this level results in an inability to analyze and interpret real world problems.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, accurate computation, and respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Students at this level have some success applying algebraic concepts. They understand enough mathematical vocabulary and possess adequate calculator skills to enable them to solve problems involving more than one step. They can identify basic translations of functions, are able to perform matrix operations, can compute with complex numbers, and determine functions of best fit.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students at this level are able to connect algebraic and graphical concepts. They understand and use mathematical vocabulary to solve multi-step equations, inequalities, as well as systems, and are familiar with exponential and logarithmic functions. They are competent with the major features of a graphing calculator enabling them to analyze and solve real world problems.

**Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

Students at this level can apply algebraic and graphical concepts in a variety of contexts. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. They are able to model and solve problems using various functions such as variations, quadratic, cubic, rational, and exponential. These students are able to identify several appropriate methods and techniques for solving problems.

## **Achievement Level Descriptors--Geometry EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, computational accuracy, and in their ability to respond with appropriate answers or procedures. They demonstrate limited use of problem solving strategies and experience difficulty with complex problems and developing geometric models.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, computational accuracy, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies. Students solve problems with a moderate level of complexity using one or more formulas or concepts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding and computational accuracy, as well as a strong ability to respond with appropriate answers or procedures. Students model and solve problems with a high level of complexity using multiple formulas or concepts.

## **Achievement Level Descriptors—English I EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate the need to develop the composition and reading comprehension skills required in the English I North Carolina *Standard Course of Study*. Students inconsistently identify and correct rudimentary language convention errors (such as incorrect verb usage, end punctuation errors, double negatives, capitalization errors, and non-standard verb forms). Students show little to no evidence of reading skills and strategies required to comprehend a variety of ninth-grade-level expressive, informational, argumentative, critical, and literary texts.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent application of the composition and reading skills required in the English I North Carolina *Standard Course of Study*. Students inconsistently apply knowledge of grammar and language usage to identify and correct language convention errors in spelling, punctuation, and simple sentence structure. Students show an initial understanding of basic literary devices and elements (such as symbolism, plot structure, and figurative language). Students may also inconsistently apply strategies such as determining the meaning of unfamiliar vocabulary through context clues and identifying the main idea and supporting details. Students show inconsistent literal comprehension of a variety of ninth-grade-level expressive, informational, argumentative, critical, and other literary works.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III typically demonstrate composition and reading comprehension skills required by the English I North Carolina *Standard Course of Study*. Students typically demonstrate an understanding of conventional written expression by editing sentences for correctness, clarity, and style. Students can infer, generalize, draw conclusions, and make connections between texts. Students can analyze the impact of details and literary elements and devices (such as characterization, dialect, imagery, symbolism, main idea, purpose, context, and figurative language) on the work as a whole. Students are typically able to comprehend and analyze a variety of ninth-grade-level expressive, informational, argumentative, critical, and other literary texts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV demonstrate a strong command of the composition and reading comprehension skills required by the English I North Carolina *Standard Course of Study*. Students consistently demonstrate an understanding of conventional written expression by editing various sentence types for correctness, clarity, and style. By inferring, generalizing, drawing conclusions, and making connections between texts, students comprehend with breadth and depth a variety of ninth-grade-level

texts. Students can analyze the impact of details and more complex literary elements and devices (such as style, diction, and tone) on the work as a whole. Students can analyze and evaluate purpose, audience, context, and elements of communication particular to expressive, informational, critical, argumentative, and other literary texts.

## **Achievement Level Descriptors--Physical Science EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of physical science concepts. They have minimal understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of physical science concepts. They have limited understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of physical science concepts and are prepared for more advanced science courses. They have an adequate understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of physical science concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

## **Achievement Level Descriptors (Interim)--Physical Science EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of physical science concepts. They have minimal understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of physical science concepts. They have limited understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of physical science concepts and are prepared for more advanced science courses. They have an adequate understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of physical science concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

## **Achievement Level Descriptors—Biology EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of biological concepts. They have a minimal understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of biological concepts. They have a limited understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of biological concepts and are prepared for more advanced science courses. They have an adequate understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of biological concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

## **Achievement Level Descriptors (Interim)—Biology EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of biological concepts. They have a minimal understanding of the physical, chemical, and cellular basis of life, the continuity of

life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of biological concepts. They have a limited understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of biological concepts and are prepared for more advanced science courses. They have an adequate understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of biological concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

## **Achievement Level Descriptors—Chemistry EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of chemical concepts. They have minimal understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of chemical concepts. They have limited understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of chemical concepts and are prepared for more advanced science courses. They have an adequate understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of chemical concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

## **Achievement Level Descriptors (Interim)—Chemistry EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of chemical concepts. They have minimal understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of chemical concepts. They have limited understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of chemical concepts and are prepared for more advanced science courses. They have an adequate understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of chemical concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

## **Achievement Level Descriptors—Physics EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of the concepts relating to physics. They have minimal understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of the concepts relating to physics. They have limited understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of the concepts relating to physics and are prepared for more advanced science courses. They have an adequate understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of concepts relating to physics and are very well prepared for more advanced science courses. They have an advanced level of understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

## **Achievement Level Descriptors (Interim)—Physics EOC Tests**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of the concepts relating to physics. They have minimal understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of the concepts relating to physics. They have limited understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

**Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of the concepts relating to physics and are prepared for more advanced science courses. They have an adequate understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

**Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of concepts relating to physics and are very well prepared for more advanced science courses. They have an advanced level of understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

## **Achievement Level Descriptors for North Carolina End-of-Course Test – Civics and Economics**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Level I are able to describe the impact of the founding of the American nation and government; identify the organization and structure of national, state and local governments; list the principles of American government; identify the purpose and function of the American legal system; identify methods of civic and economic participation; identify the functions of the American economy at the national and personal levels; and list fundamental economic concepts.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Level II are able to explain the impact of the founding of the American nation and government; describe the roles of national, state and local governments; explain the principles of American government; explain the purpose and function of the American legal system; investigate opportunities for civic and economic participation; describe the functions of the American economy at the national and personal levels; and understand fundamental economic concepts.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Level III are able to analyze the impact of the founding of the American nation and government; analyze the organization and structure of national, state and local governments; apply the principles of American government to the functions of national, state, and local governments; analyze the purpose and function of the American legal system; investigate opportunities for civic and economic participation and apply learned skills and principles to various situations; explain the functions of the American economy at the national and personal levels; and apply fundamental economic concepts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV are able to analyze the impact of the founding of the American nation on the development of American government; evaluate the effectiveness of the organization and structure of national, state and local governments; assess the relationship between the principles of American government and the functioning of national, state, and local governments; evaluate the effectiveness of the American legal system in maintaining order and justice; determine the effectiveness of civic and economic participation as applied to learned skills and principles; evaluate the functions of the American economy at the national and personal levels; and analyze fundamental economic concepts.

# **Achievement Level Descriptors for North Carolina End-of-Course Test – United States History**

## **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Level I are able to identify the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs; and the significance of the developments of the twentieth century on the lives of Americans.

## **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Level II are able to identify and describe the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

## **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Level III are able to identify, describe, and analyze the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; analyze the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

## **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV are able to identify, describe, analyze, and evaluate the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact

on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

**EXECUTIVE SUMMARY**

**Title:** Recommended Interim Cut Scores/Achievement Level Descriptors For NCCLAS EOC Science Tests and Final Achievement Level Descriptors for the NCCLAS EOC Assessment of Algebra II

**Type of Executive Summary:**

Action       Action on First Reading       Discussion       Information

**Policy Implications:**

Constitution \_\_\_\_\_  
 General Statute # \_\_\_\_\_  
 SBE Policy # HSP-C-024  
 SBE Policy Amendment  
 SBE Policy (New)  
 APA # \_\_\_\_\_  
 APA Amendment  
 APA (New)  
 Other NCLB Act of 2001

**Presenter(s):** Dr. Louis M. Fabrizio (Director, Accountability Services Division)

**Description:**

In accordance with the practice established after the national audit panel's review of the testing program in 2001, the recommended interim cut scores and achievement level descriptors for the NCCLAS EOC science assessments (Physical Science, Biology, Chemistry, and Physics) and the *final* achievement level descriptors for the NCCLAS EOC Algebra II assessment are being provided for adoption on first reading at the February 2008 meeting of the State Board of Education. The NCCLAS science EOC tests are to be implemented effective with the 2007-08 school year for students with disabilities who require an alternate assessment with a different format in order to access grade level course content and standards with the same degree of challenge and rigor in order to access the statewide testing program as required by the NCLB Act of 2001. The interim cut scores and achievement level descriptors for the NCCLAS science EOC tests were generated by a panel of practitioners during a session held at NCSU on January 14, 2008 under guidance of an external facilitator from RTI. The final achievement level descriptors for NCCLAS EOC Algebra II were generated by a group of practicing mathematics educators. The recommended interim cut scores and descriptors for the noted NCCLAS EOC science assessments are to be effective with the 2007-08 school year. The recommended descriptors for the NCCLAS EOC Algebra II assessments are to be implemented with the 2007-08 school year. NCCLAS is a grade-level alternate assessment with grade-level academic achievement standards for students with IEPs and students who are LEP who are taught grade level competencies but due to the nature of their disability or level of language proficiency need a different type of assessment to access the statewide testing program.

**Resources:**

Staff psychometricians, other staff from Test Development Section at NCDPI, the test development staff at NCSU-TOPS, EC representatives, curriculum staff, and some representatives from other sections and divisions within the agency, a group of science and mathematics educators and practitioners

**Input Process:**

Recommendation from mathematics, science, and EC educators, staff from the Test Development Section, test development staff at NCSU-TOPS, and staff from other sections and divisions in the department provided input into the recommendation.

**Stakeholders:**

Public school educators, the exceptional children's community, the ELL community, state and federal policy makers, parents, students, and the general public

**Timeline For Action:**

The department recommends that the interim academic achievement standards (cut scores) and achievement level descriptors for NCCLAS EOC science assessments and the final achievement level descriptors for NCCLAS EOC Algebra II be adopted on first reading at the February 2008 meeting of the SBE.

**Recommendations:**

The department recommends that the State Board amend policy HSP-C-024 and that the interim cut scores and achievement level descriptors for the NCCLAS EOC science assessments (Physical Science, Biology, Chemistry, and Physics) and the final achievement level descriptors for the NCCLAS EOC assessment in the area of Algebra II be approved as provided.

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Audiovisual equipment requested for the presentation:

Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)  
Specify: \_\_\_\_\_

Audio Requirements (computer or other, except for PA system which is provided)  
Specify: \_\_\_\_\_

Document Camera (for transparencies or paper documents – white paper preferred)  
\_\_\_\_\_

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Motion By: \_\_\_\_\_

Seconded By: \_\_\_\_\_

Vote: Yes \_\_\_\_\_ No \_\_\_\_\_

Abstain \_\_\_\_\_

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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\*Person responsible for SBE agenda materials and SBE policy updates: Lucy Medlin, (919) 807-3771

**NORTH CAROLINA STATE BOARD OF EDUCATION  
Policy Manual**

**Policy Identification**

**Priority:** High Student Performance  
**Category:** ABCs Accountability Model  
**Policy ID Number:** HSP-C-024

**Policy Title:** Policy delineating Academic Achievement Standards (cut scores for the North Carolina Checklist of Academic Standards (NCCLAS))

**Current Policy Date:** 01/10/2008

**Other Historical Information:** 12/01/2005, 02/02/2006, 03/02/2006,01/04/2007,5/03/2007,12/06/2007

**Statutory Reference:** G.S. 115C-174.11(b)(c)

**Administrative Procedures Act (APA) Reference Number and Category:**

**\*\*\* Begin Policy \*\*\* (Do not tamper with this line)**

**The following achievement-level ranges for the NCCLAS have been approved by the State Board of Education for use in the ABCs Accountability Program:**

**NCCLAS End-of-Course Achievement Level Cut Scores**

Course	Achievement Level I	Achievement Level II	Achievement Level III	Achievement Level IV
Algebra I (for 2005-06 through 2006-07)	4-5	6-8	9-13	14-16
Algebra I (effective 2007-08)	4-6	7-9	10-13	14-16
Algebra II (for 2005-06 through 2006-07)	4-5	6-9	10-13	14-16
Algebra II (effective 2007-08)	4-6	7-9	10-13	14-16
Geometry (effective 2005-06)	4-6	7-9	10-13	14-16
Biology ( <u>effective 2005-06 through 2006-07</u> )	4-6	7-8	9-13	14-16
<u>Biology (effective</u>	<u>4-5</u>	<u>6-9</u>	<u>10-13</u>	<u>14-16</u>

<u>2007-08)</u>				
Chemistry	4-6	7-9	10-13	14-16
Physics	4-5	6-9	10-13	14-16
Physical Science	4-6	7-9	10-13	14-16
U.S. History	4-5	6-8	9-13	14-16
Civics and Economics	4-5	6-8	9-13	14-16
English I (for 2005-06 through 2006-07)	4-6	7-8	9-13	14-16
English I (effective 2007-08)	4-6	7-9	10-14	15-16

**NCCLAS Mathematics End-of-Grade Achievement Level Cut Scores**

GRADE	Achievement Level I	Achievement Level II	Achievement Level III	Achievement Level IV
Mathematics 3	4-5	6-8	9-13	14-16
Mathematics 4	4-5	6-8	9-13	14-16
Mathematics 5	4-5	6-8	9-13	14-16
Mathematics 6	4-5	6-8	9-13	14-16
Mathematics 7	4-5	6-8	9-13	14-16
Mathematics 8	4-5	6-8	9-13	14-16
Mathematics 10	4-5	6-9	10-13	14-16

**NCCLAS Reading End-of-Grade Achievement Level Cut Scores**

GRADE	Achievement Level I	Achievement Level II	Achievement Level III	Achievement Level IV
Reading 3	4-5	6-8	9-13	14-16
Reading 4	4-5	6-8	9-13	14-16
Reading 5	4-5	6-8	9-13	14-16
Reading 6	4-5	6-8	9-13	14-16
Reading 7	4-5	6-8	9-13	14-16
Reading 8	4-5	6-8	9-13	14-16
Reading 10	4-5	6-8	9-12	13-16

**NCCLAS Writing Achievement Level Cut Scores**

GRADE	Achievement Level I	Achievement Level II	Achievement Level III	Achievement Level IV
Writing 4	4-6	7-9	10-13	14-16
Writing 7	4-6	7-9	10-13	14-16
Writing 10	4-6	7-9	10-13	14-16

**NCCLAS Science Achievement Level Cut Scores**

GRADE	Achievement Level I	Achievement Level II	Achievement Level III	Achievement Level IV
Science 5	4-5	6-9	10-13	14-16
Science 8	4-5	6-9	10-13	14-16

Achievement Level Descriptors—North Carolina Checklist of Academic Standards (NCCLAS), (A North Carolina Alternate Assessment)

**Achievement Level Descriptors—NCCLAS Grade 3 Reading EOG Assessment**

**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 demonstrate a need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 3. Students show little evidence of applying reading skills and strategies required to comprehend a variety of third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

**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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 3. Students typically show evidence of literal comprehension of a variety of third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students may also make basic inferences, draw simple conclusions, and locate information in a variety of texts, including charts, maps, and diagrams.

**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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 3. Students comprehend a variety of

third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students interpret and analyze text by utilizing skills and strategies such as making inferences, drawing conclusions, predicting outcomes, comparing and contrasting, and determining main idea. They also use text features and text structures to comprehend. Students analyze characters, identify problems, and determine meaning of unfamiliar vocabulary.

**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 an advanced application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 3. Students comprehend with depth of understanding a variety of third grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students extend ideas by connecting and integrating information. They apply a more sophisticated understanding of text features and structures to comprehend. Students interpret figurative language and analyze author’s word choice.

**Achievement Level Descriptors—NCCLAS Grade 4 Reading EOG Assessment**

**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 demonstrate a need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 4. Students show little evidence of applying reading skills and strategies required to comprehend a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

**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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 4. Students typically show evidence of literal comprehension of a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students apply some knowledge of text structure and make connections to information beyond the text. They may also draw simple conclusions, make predictions, and interpret information in a variety of texts including graphs, charts, and maps.

**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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 4. Students comprehend a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students examine author’s word choice and identify author’s purpose. They interpret and analyze text by utilizing skills and strategies such as making inferences, drawing conclusions, comparing and contrasting, and

determining main idea. They also use text features and text structures to comprehend. Students examine reasons for characters' actions, integrate information and ideas, and determine meaning of unfamiliar vocabulary.

**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 an advanced application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 4. Students comprehend with depth of understanding a variety of fourth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students extend ideas by connecting, synthesizing and integrating information from within the entire text and beyond. They demonstrate a more sophisticated understanding of the text through the inferences and connections they make and the conclusions they draw. Students also interpret figurative language and analyze author's word choice.

## **Achievement Level Descriptors—NCCLAS Grade 5 Reading EOG Assessment**

### **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 demonstrate a need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 5. Students show little evidence of applying reading skills and strategies required to comprehend a variety of fifth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 5. Students typically show evidence of literal comprehension of a variety of fifth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students apply knowledge of text structure to locate information for specific purposes. They may also draw simple conclusions, make basic inferences, identify sequence of events, analyze characters, and interpret information in a variety 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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* for grade 5. Students comprehend a variety of fifth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students examine plot and analyze author's word choice and figurative language. They apply skills and strategies such as predicting, making inferences, drawing conclusions, comparing and contrasting, and making connections to interpret and evaluate text. They also use text features and text structures to comprehend. Students examine reasons for characters' actions, integrate information and ideas, and determine meaning of unfamiliar vocabulary.

### **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 an advanced application of the reading comprehension skills required in the North Carolina Standard Course of Study for Grade 5. Students comprehend with depth of understanding a variety of fifth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students examine and evaluate relationships. They extend ideas by connecting, synthesizing and integrating information from within the entire text and beyond. They demonstrate a more sophisticated understanding of the text through the inferences and connections they make and the conclusions they draw. Students also determine the effectiveness of figurative language and analyze author's craft.

## **Achievement Level Descriptors—NCCLAS Grade 6 Reading EOG Assessment**

### **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 demonstrate the need to develop reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 6. Students show little to no evidence of reading skills and strategies required to comprehend a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 6. Students typically show evidence of literal comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students may also make basic inferences, show evidence of utilizing text structure, make connections to prior knowledge, and apply strategies such as determining meaning of unfamiliar vocabulary through context clues.

### **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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 6. Students show evidence of comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students infer, draw conclusions, and determine author's purpose. Students compare and contrast elements within text and analyze the effect of figurative language, author's craft, and literary elements.

### **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 an advanced application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 6. Students show evidence of deep comprehension of a variety of sixth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students infer, synthesize, draw conclusions, determine author's purpose, and examine underlying assumptions. Students compare and contrast elements within and between texts. They also analyze the effect of figurative language, author's craft, and literary elements.

## **Achievement Level Descriptors—NCCLAS Grade 7 Reading EOG Assessment**

### **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 demonstrate the need to develop reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 7. Students show little to no evidence of reading skills and strategies required to comprehend a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 7. Students typically show evidence of literal comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They apply strategies such as determining meaning of unfamiliar vocabulary through context clues. Students may recognize organizational structure and relationships. They make connections within text and examine the purpose of the author.

### **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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 7. Students show evidence of comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They infer, draw conclusions, and analyze author's purpose. Students synthesize and apply elements within text to make meaning based on evidence. They analyze literary elements and different points of view.

### **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 an advanced application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 7. Students show evidence of deep comprehension of a variety of seventh grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. They integrate and apply information in a variety of situations, as well as consider the implications of figurative language, author's craft, and literary elements.

## **Achievement Level Descriptors—NCCLAS Grade 8 Reading EOG Assessment**

### **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 demonstrate the need to develop the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 8. Students show little to no evidence of reading skills and strategies required to comprehend a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama.

### **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 demonstrate limited reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 8. Students show evidence of literal comprehension of a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students may also make basic inferences, draw simple conclusions and apply information in text to new situations. They also use context clues to determine meaning of unfamiliar vocabulary and demonstrate initial understanding of the effects of figurative language.

### **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 demonstrate grade level reading comprehension skills as required in the North Carolina *Standard Course of Study* at grade 8. Students show evidence of comprehension of a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students make inferences, draw conclusions, and evaluate author's purpose and stance. They evaluate the effect of literary devices and elements such as figurative language, setting, characterization, irony, dialogue, and symbolism. Students compare and contrast elements within the text and extend ideas beyond the 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 an advanced application of the reading comprehension skills required in the North Carolina *Standard Course of Study* at grade 8. Students comprehend with breadth and depth a variety of eighth grade level texts, such as fiction, literary and informational nonfiction, poetry, and drama. Students infer, synthesize, draw conclusions, determine author's purpose, and analyze the impact of details to determine underlying assumptions. Students consistently compare and contrast elements within and between texts. They show evidence of a sophisticated analysis of the effect of literary devices and elements such as figurative language, setting, characterization, irony, dialogue, and symbolism.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 3 Mathematics**

### **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 Level I show minimal understanding and computational accuracy. The students often respond with inappropriate answers or procedures. They rarely use problem-solving strategies.

Level I students demonstrate a lack of development of number sense for whole numbers through 9,999 and a lack of evidence of ability to perform multi-digit addition and subtraction. They can rarely show knowledge of multiplication facts. Students inconsistently compare, order, and represent rational numbers (halves, fourths, and eighths; thirds and sixths) concretely and symbolically. They rarely use appropriate vocabulary to compare, describe, and classify two- and three-dimensional shapes. Students are not able to correctly measure length, capacity, weight, time, and temperature (Fahrenheit and Celsius). They can sometimes identify and extend simple numeric or geometric patterns. Students show minimal understanding of organizing and displaying data using a variety of graphs. They are rarely able to identify points on rectangular coordinate system. Students seldom correctly use symbols to represent unknown quantities in number sentences and to solve simple equations. They rarely solve problems using a variety of strategies.

### **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 Level II typically show some evidence of understanding and computational accuracy. The students sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Level II students show some evidence of number sense for whole numbers through 9,999 and some evidence of multi-digit subtraction. They inconsistently apply multiplication facts in single-digit multiplication and division. Using fractions, they often incorrectly compare, order, and occasionally misrepresent (halves, fourths, thirds, sixths, and eighths). Students sometimes use appropriate vocabulary to compare, describe, and classify two- and three-dimensional shapes. They are inconsistent in measurement of length, capacity, weight, time, and temperature (Fahrenheit and Celsius). Students show limited understanding of the concept of probability. They are inconsistent when they identify and extend numeric and geometric patterns. Students are sometimes successful at organizing and displaying data using a variety of graphs. They sometimes correctly identify points on the rectangular coordinate system. Students occasionally correctly solve problems where symbols are used to represent unknown quantities in number sentences and to solve simple equations. They sometimes solve problems using a limited variety of strategies

### **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 Level III generally show understanding, compute accurately. The students consistently respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Level III students demonstrate number sense for whole numbers through 9,999 and show consistent evidence of ability with multi-digit subtraction. They know multiplication facts and are fluent with single-digit multiplication and division. They regularly are successful at comparing, ordering and representing rational numbers (halves, fourths, thirds, sixths, and eighths). Students consistently use appropriate vocabulary to compare, describe, and classify two- and three-dimensional shapes. They frequently measure length, capacity, weight, time, and temperature accurately (Fahrenheit and Celsius). Almost always, students identify and extend numeric or geometric patterns correctly. They correctly organize and display data using a variety of graphs. Students appropriately use the rectangular coordinate system to graph and identify points. They understand and use simple probability concepts.

#### **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 Level IV commonly show a high level of understanding, compute accurately. The students are very consistent responding with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Level IV students demonstrate a high level of success with regard to number sense for whole numbers through 9,999. They show mastery of multi-digit subtraction and apply multiplication facts fluently with single-digit multiplication and division. They consistently correctly compare, order, and represent rational numbers (halves, fourths, third, sixths, and eighths). Students consistently use appropriate vocabulary to compare, describe, and classify two- and three- dimensional shapes. They accurately measure length, capacity, weight, time, and temperature (Fahrenheit and Celsius). Students successfully identify and extend complex numeric or geometric patterns. They successfully organize, display, and interpret data using a variety of graphs. Students use the rectangular coordinate system to graph, identify, and mentally manipulate points. They accurately apply simple probability concepts. Students correctly use symbols to represent unknown quantities in number sentences and to solve equations. They solve high level thinking problems using a wide variety of strategies.

Students generally are able to use symbols to represent unknown quantities in number sentences and to solve simple equations successfully. They can solve problems using a variety of strategies.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 4 Mathematics**

### **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 Level I show minimal understanding and computational accuracy. The students often respond with inappropriate answers or procedures. They rarely use problem-solving strategies.

Level I students rarely show number sense by comparing, ordering, estimating, and representing numbers from 0.01 to 99,999. Students are rarely able to multiply and divide multi-digit numbers or use strategies for estimation of products and quotients in appropriate situations. Students are not able to add and subtract fractions with like denominators. They seldom solve problems involving the perimeter of plane figures and the area of rectangles. Students cannot make appropriate use of the coordinate plane to describe location and relative position of points. They seldom describe lines accurately as parallel or perpendicular. Students are rarely successful at collecting, organizing, analyzing, and displaying data using a variety of graphs. They are unable to use range, median, and mode to describe a set of data. Students can rarely design simple experiments to investigate and describe the probability of events. Students are unable to use the order of operations or the identity, commutative, associative, and distributive properties.

### **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 Level II typically show some evidence of understanding and computational accuracy. The students sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Level II students sometimes show number sense by comparing, ordering, estimating, and representing numbers from 0.01 to 99,999. They inconsistently multiply and divide multi-digit numbers. Students sometimes use strategies including estimation of products and quotients in appropriate situations. They are inconsistent in addition and subtraction of fractions with like denominators. Students sometimes solve problems involving perimeter of plane figures and the area of rectangles. Students sometimes correctly use the coordinate plane to describe the location and relative position of points. They inconsistently describe lines correctly as parallel or perpendicular. Students have difficulty collecting, organizing, analyzing, and displaying data using a variety of graphs. They are inconsistent in their ability to use range, median, and mode to describe a set of data. Students sometimes successfully design and use simple experiments to investigate and describe the probability of events. Students inconsistently use the order of operations or the identity, commutative, associative, and distributive properties.

### **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 Level III generally show understanding and computational accuracy. The students consistently respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Level III students frequently show number sense by comparing, ordering, estimating, and representing numbers from 0.01 to 99,999. They are usually consistent when multiplying and dividing multi-digit numbers; they use strategies including estimation of products and quotients in appropriate situations. They also add and subtract numbers with like denominators. Students solve problems involving perimeter of plane figures and area of rectangles. Students use coordinate planes to describe the location and relative position of points. They describe lines correctly as parallel or perpendicular. Students collect, organize, analyze, and display data using a variety of graphs. They use range, median, and mode to describe a set of data. Students design and use simple experiments to investigate and describe the probability of events. Students generally can use the order of operations or the identity, commutative, associative, and distributive properties.

#### **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 Level IV commonly show a high level of understanding and computational accuracy. The students are very consistent responding with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Level IV students successfully show number sense by comparing, ordering, estimating, and representing numbers from 0.01 to 99,999. They display fluency with multiplication and division of multi-digit numbers. Students effectively use strategies including estimation of products and quotients in appropriate situations. They exhibit mastery of addition and subtraction of fractions with like denominators and decimals through hundredths. Students consistently solve problems involving the perimeter of plane figures and area of rectangles. They show a thorough understanding and application of the coordinate plane when describing location and relative position of a point. Students consistently describe lines correctly as parallel or perpendicular. They successfully collect, organize, and display data using a variety of graphs. Students accurately use range, median, and mode to describe a set of data. They effectively design and use simple experiments to investigate and describe the probability of events. Students successfully use the order of operations or the identity, commutative, associative, and distributive properties.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 5 Mathematics**

### **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 Level I usually show minimal understanding and computational accuracy and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies.

Students rarely demonstrate number sense for rational numbers 0.001 through 999,999. They rarely demonstrate ability in the addition, subtraction, comparison, and ordering of fractions and decimals. They seldom can estimate the measure of an object in one system given the measure of that object in another system. They rarely identify, estimate, and measure the angles of plane figures and rarely identify angle relationships. Students rarely identify, define, and describe the properties of plane figures, including parallel lines, perpendicular lines, and lengths of sides and diagonals. Students are seldom able to identify, generalize, and extend numeric and geometric patterns. In solving problems, fifth-graders at Level I rarely organize, analyze, and display data using a variety of graphs. They rarely are able to use range, median, and mode to describe multiple sets of data. Students rarely use algebraic expressions to solve one-step equations and inequalities. They rarely identify, describe, and analyze situations with constant or 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 Level II typically show some evidence understanding and computational accuracy and sometimes respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Students demonstrate inconsistent number sense for rational numbers 0.001 through 999,999. They demonstrate limited ability in the addition, subtraction, comparison, and ordering of fractions and decimals. They inconsistently estimate the measure of an object in one system given the measure of that object in another system. They sometimes correctly identify, estimate, and measure the angles of plane figures and sometimes correctly identify angle relationships. Students inconsistently identify, define, and describe the properties of plane figures, including parallel lines, perpendicular lines, and lengths of sides and diagonals. Students are sometimes able to identify, generalize, and extend numeric and geometric patterns. In problem solving, fifth-graders at Level II inconsistently organize, analyze, and display data using a variety of graphs. They have inconsistent success using range, median, and mode to describe multiple sets of data. Students sometimes are able to use algebraic expressions to solve one-step equations and inequalities. They inconsistently identify, describe, and analyze situations with constant or 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 Level III generally show understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students generally demonstrate number sense for rational numbers 0.001 through 999,999. They generally demonstrate ability in the addition, subtraction, comparison, and ordering of fractions and decimals. They usually make correct estimates of the measure of an object in one system given the measure of that object in another system. Students generally identify, estimate, and measure the angles of plane figures and generally identify angle relationships. They generally identify, define, and describe the properties of plane figures, including parallel lines, perpendicular lines, and lengths of sides and diagonals. Students are usually able to identify, generalize, and extend numeric and geometric patterns. To solve problems, fifth-graders at Level III generally are able to organize, analyze, and display data using a variety of graphs. They generally use range, median, and mode to describe multiple sets of data. Students generally use algebraic expressions to solve one-step equations and inequalities. They generally identify, describe, and analyze situations with constant or varying rates of change.

**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 Level IV commonly show a high level of understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Students consistently demonstrate number sense for rational numbers 0.001 through 999,999. They consistently demonstrate ability in the addition, subtraction, comparison, and ordering of fractions, mixed numbers, and decimals. They correctly estimate the measure of an object in one system given the measure of that object in another system. Students commonly identify, estimate, and measure the angles of plane figures and commonly identify angle relationships. They consistently identify, define, and describe the properties of plane figures, including parallel lines, perpendicular lines, and lengths of sides and diagonals. Students are commonly able to identify, generalize, and extend numeric and geometric patterns. To solve problems, fifth-graders at Level IV consistently organize, analyze, and display data using a variety of graphs. They consistently use range, median, and mode to describe multiple sets of data. Students commonly use algebraic expressions to solve one-step equations and inequalities. They commonly identify, describe, and analyze situations with constant or varying rates of change.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 6 Mathematics**

### **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 Level I lack understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies.

Level I students seldom accurately add, subtract, multiply, and divide non-negative rational numbers using order of operations. They seldom correctly compare, order, and estimate with rational numbers. They lack understanding in the use of factors, multiples, exponential and scientific notation, prime factorization and percents. Level I students seldom correctly estimate and measure weight and mass of three-dimensional figures to solve problems. They seldom estimate and measure length, perimeter, area, circumference, and angles of two-dimensional figures to solve problems.

They seldom can identify and describe the intersection and transformation of geometric figures in a coordinate plane. They lack understanding of counting strategies and seldom can solve problems by determining the probability of simple, compound, dependent, and independent events. Level I students seldom can simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems.

### **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 Level II exhibit inconsistent performance and show limited evidence of understanding. They have difficulty applying problem-solving strategies in unfamiliar situations.

Students are not consistently able to add, subtract, multiply, and divide non-negative rational numbers using order of operations. They demonstrate limited ability in the use of factors, multiples, exponential and scientific notation, prime factorization and percents. Level II students inconsistently estimate and measure weight and mass of three-dimensional figures. They inconsistently estimate and measure length, perimeter, area, circumference, and angles of two-dimensional figures to solve problems. They inconsistently identify and describe the intersection and transformation of geometric figures in a coordinate plane. Students demonstrate limited ability with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They inconsistently apply algebraic principles to simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems.

### **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 Level III generally show understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students generally are able to accurately add, subtract, multiply, and divide non-negative rational numbers using order of operations. They usually demonstrate ability in the use of factors, multiples, exponential and scientific notation, prime factorization and percents. Students generally estimate and

measure weight and mass of three-dimensional figures to solve problems. They generally estimate and measure length, perimeter, area, circumference, and angles of two-dimensional figures to solve problems. Students generally identify and describe the intersection and transformation of geometric figures in a coordinate plane. They demonstrate general ability with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They generally can simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems.

**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 Level IV show a high level of understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Students consistently and accurately add, subtract, multiply, and divide non-negative rational numbers using order of operations. They demonstrate fluency in the use of factors, multiples, exponential and scientific notation, prime factorization and percents. Students consistently estimate and measure weight and mass of three-dimensional figures to solve problems. They consistently estimate and measure length, perimeter, area, circumference, and angles of two-dimensional figures to solve problems. They consistently identify and describe the intersection and transformation of geometric figures in a coordinate plane. Students demonstrate fluency with counting strategies and solve problems by determining the probability of simple, compound, dependent, and independent events. They consistently are able to simplify algebraic expressions as well as use one- and two-step equations and inequalities to represent relationships and solve problems.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 7 Mathematics**

### **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 Level I lack understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies.

Level I students show insufficient mastery of addition, subtraction, multiplication, and division of rational numbers following the order of operations. (Rational numbers may be positive, negative, or zero and include whole numbers, fractions, mixed numbers, and decimals). Students show inability to set up and solve real-world percent problems. They rarely can write and solve proportions with rational numbers, including scaling and scale drawing. Students at Level I usually can not solve problems involving the volume of rectangular prisms, triangular prisms, and cylinders. At Level I, students are not successful in creation of a box plot with understanding of measures of central tendency and the effect of outliers. They cannot write and solve functions from graphs, tables, or written descriptions in simpler problems. Students seldom are able to use linear equations or inequalities to solve authentic problems.

### **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 Level II exhibit inconsistent performance and show limited evidence of understanding. They have difficulty applying problem-solving strategies in unfamiliar situations.

Level II students demonstrate inconsistent ability with addition, subtraction, multiplication, and division of rational numbers following the order of operations. (Rational numbers may be positive, negative, or zero and include whole numbers, fractions, mixed numbers, and decimals). Students have difficulty with the set up and solution of real-world percent problems. They are inconsistent in ability to write and solve proportions with rational numbers, including scaling and scale drawing. Students at Level II can sometimes solve problems involving the volume of rectangular prisms, triangular prisms, and cylinders. At Level II, students are partially successful in creation of a box plot with understanding of measures of central tendency and the effect of outliers. They write and solve functions from graphs, tables, or written descriptions in simpler problems. Students can sometimes use linear equations or inequalities to solve authentic problems.

### **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 Level III generally show understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Level III students demonstrate consistent ability with addition, subtraction, multiplication, and division of rational numbers following the order of operations. (Rational numbers may be positive, negative, or zero and include whole numbers, fractions, mixed numbers, and decimals). Students also show consistent ability to set up and solve real-world percent problems. They demonstrate consistent ability to write and solve proportions with rational numbers, including scaling and scale drawing. Students are able to solve

problems involving the volume of rectangular prisms, triangular prisms, and cylinders. At Level III, students are usually successful in creation of a box plot with understanding of measures of central tendency and the effect of outliers. They write and solve functions from graphs, tables, or written descriptions with consistent success. Students use linear equations or inequalities to solve authentic problems.

**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 Level IV show a high level of understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Level IV students demonstrate fluency with addition, subtraction, multiplication, and division of rational numbers using order of operations. (Rational numbers may be positive, negative, or zero and include whole numbers, fractions, mixed numbers, and decimals). Students show a high level of success to set up and solve real-world percent problems. Level IV students are very successful at writing and solving proportions with rational numbers, including scaling and scale drawing. They solve multi-step surface area and volume problems including composite figures. Students consistently and accurately create a box plot from data, showing understanding of all central tendencies and the effect of outliers. They write and solve functions from graphs, tables, or written descriptions with a high level of success. Students very effectively use linear equations or inequalities to solve authentic problems.

## **Achievement Level Descriptors for NCCLAS EOG Assessment-- Grade 8 Mathematics**

### **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 Level I lack understanding and computational accuracy. They frequently respond with inappropriate answers or procedures. They seldom use problem-solving strategies.

Level I students show lack of understanding of real numbers, including irrational numbers. They rarely are able to use indirect measurements or to use the Pythagorean Theorem to solve problems. Level I students are seldom successful at organizing and interpreting data, using scatterplots and approximating a line of best fit. Students at Level I demonstrate a lack of understanding of functions and are unable to convert functions between forms and interpret slope and intercepts. They can seldom use linear equations and inequalities to solve problems or translate between words, tables, and graphs.

### **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 Level II exhibit inconsistent performance and show limited evidence of understanding. They have difficulty applying problem-solving strategies in unfamiliar situations.

Level II students show an inconsistent level of understanding of real numbers, including irrational numbers. They have difficulty using indirect measurements and using the Pythagorean Theorem to solve problems. Level II students show limited evidence of ability at organizing and interpreting data, using scatterplots and approximating a line of best fit. Students at Level II demonstrate a limited understanding of functions are inconsistent in converting functions between forms and interpreting slope and intercepts. They have difficulty using linear equations and inequalities to solve problems, translating between words, tables, and graphs.

### **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 Level III generally show understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Level III students consistently show a proficient level of understanding of real numbers including irrational numbers. They generally are correct in use of indirect measurements. Students are usually successful at using the Pythagorean Theorem to solve problems. Level III students are often successful at organizing and interpreting data, using scatterplots and approximating a line of best fit. Students at Level III demonstrate an understanding of functions and can usually convert functions between forms and interpret slope and intercepts. They are generally successful at using linear equations and inequalities to solve problems, translating between words, tables, and graphs.

### **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 Level IV show a high level of understanding, compute accurately, and respond consistently with appropriate answers or procedures. They demonstrate flexibility by using a variety of problem-solving strategies.

Level IV students consistently show a high level of understanding of real numbers, including irrational numbers. They correctly and accurately use indirect measurements. Students are consistently successful at using the Pythagorean Theorem to solve problems. Level IV students are highly successful at organizing and interpreting data, using scatterplots and approximating a line of best fit. Students at Level IV demonstrate a high level understanding of functions and are successful converting functions between forms and interpreting slope and intercepts. They are highly successful at using linear equations and inequalities to solve problems, translating between words, tables, and graphs.

## **Achievement Level Descriptors—NCCLAS Grade 4 Writing Assessment**

### **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 have made an attempt to address the task and provide some sense of story. The narrative lacks a sense of logical progression, the topic/subject is not developed, and there is a lack of control of organizational structure and details. The students display an insufficient knowledge of vocabulary and skills in conventions necessary to be successful at the next grade level.

### **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 have unevenly developed narratives with some lapses in the logical progression and the connections between and among ideas. There are some inappropriate and/or sparse details and elaboration provided and readability may detract and/or interfere with the focus on the topic/subject of the narrative. The students display a lack of ability to appropriately use vocabulary and conventions and are minimally prepared to be successful at the next grade 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 have effectively employed a strategy that connects the beginning, middle, and end of the narrative. The ideas presented are relevant and the elaboration is sufficient, resulting in a reasonable sense of completeness. The students display an appropriate use of vocabulary and conventions and are well prepared for the next grade level.

### **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 have effectively crafted a narrative that demonstrates a strong sense of story that progresses logically from one developed idea to another, resulting in a sense of overall completeness. The students display a skillful use of precise and purposeful vocabulary clearly beyond that required to be proficient at grade level work.

## **Achievement Level Descriptors—NCCLAS Grade 7 Writing Assessment**

### **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 have made an attempt to address the task but there is a lack of support for the ideas presented and little or no organization or focus on the topic/subject. The students display a lack of minimal sentence fluency and use inappropriate vocabulary and skills in conventions necessary to be successful at the next grade level.

### **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 demonstrate some organization and support for the ideas presented, but may lapse into a loss of focus on the topic/subject when the support or elaboration is sparse or incomplete. The students display limited vocabulary and sentence fluency and are minimally prepared to be successful at the next grade 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 provide some specific, relevant details in support of the topic/subject and sufficiently elaborated details progress logically. The students employ the use of a variety of sentence structures and vocabulary appropriate to the purpose, audience, and context of the task and are well prepared for the next grade level.

### **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 provide well developed elaboration supporting the topic/subject and have skillfully crafted a logical, fluid, progression of ideas through the use of complex strategies of development. The students use language skillfully and effectively clearly beyond that required to be proficient at grade level work.

## **Achievement Level Descriptors—NCCLAS Grade 10 Writing Assessment**

### **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 have made an attempt to address the task but there is weak, inconsistent, or little or no sense of progression from one idea to another, resulting in a loss of focus on the topic/subject. Little or no relevant details are present that support the topic/subject. The students display a lack of minimal knowledge of sentence structure, usage, spelling, and punctuation necessary to be successful at the next grade level.

### **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 exhibit some sense of control of the purpose, audience, and context of the response. An organizational structure establishing minimal relatedness between and among ideas and/or events impacts logical progression and a few general or unelaborated details are present. The students display patterns of errors in conventions and are minimally prepared to be successful at the next grade 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 maintain consistent control of the purpose, audience, and context of the response. A sense of organization, a logical progression of ideas, and sufficiently developed support and elaboration are present. Students display a consistent control of conventions and style and are well prepared for the next grade level.

### **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 the use of higher order thinking skills in presenting a unified progression of ideas while examining the relationships between and among those ideas. In-depth support and elaboration is shown through the use of precise, appropriate language. Students display a skillful use of conventions and style clearly beyond that required to be proficient at grade level work.

## **Achievement Level Descriptors—NCCLAS Algebra I EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often responds with inappropriate answers or procedures.

Students at this level are able to display data in a matrix; identify and use an element in a given matrix; add and subtract matrices; apply the laws of exponents to monomials; and add and subtract basic polynomials. Students are able to solve single-step equations and inequalities.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in: conceptual understanding, computational accuracy, and in ability to respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Students at this level are able to perform basic matrix operations and interpretations; perform direct substitutions in functions and formulas; simplify formulas using order of operations; identify the greatest common factor of a polynomial; and multiply simple binomials. Students are able to use and solve two-step equations and inequalities.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding and computational accuracy, and they respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students at this level are able to write and solve linear equations; create linear models; apply and interpret constants and coefficients; understand the concepts of parallel, perpendicular and the equation of a line; solve systems of equations; factor and solve using polynomials; and use exponential and quadratic functions to solve problems. Students are able to model and solve multi-step equations and inequalities.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, computational accuracy, and ability to respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

Students at this level understand the translations of linear equations; successfully solve problems in the context of real-world situations; and interpret change in the slope, y-intercept, coefficients and constants.

Level IV students are able to model and solve multi-step equations and inequalities in the context of multi-concept application problems.

## **Achievement Level Descriptors—NCCLAS Algebra II EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, accurate computation, and responding with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

## **Achievement Level Descriptors— NCCLAS Algebra II EOC Assessment**

In Algebra II students apply algebraic concepts including relations, functions, polynomials, rational expressions, complex numbers, systems of equations and inequalities, and matrices. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. Students use equations of circles and parabolas to model and solve problems. They model and solve problems by using direct, inverse, combined and joint variation.

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

Students at this level have difficulty applying most algebraic concepts. They have moderate success working one-step problems and those requiring routine calculator skills. The lack of computational and reasoning skills at this level results in an inability to analyze and interpret real world problems.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, accurate computation, and respond with appropriate answers or procedures. They demonstrate limited use of problem-solving strategies.

Students at this level have some success applying algebraic concepts. They understand enough mathematical vocabulary and possess adequate calculator skills to enable them to solve problems involving more than one step. They can identify basic translations of functions, are able to perform matrix operations, can compute with complex numbers, and determine functions of best fit.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies.

Students at this level are able to connect algebraic and graphical concepts. They understand and use mathematical vocabulary to solve multi-step equations, inequalities, as well as systems, and are familiar with exponential and logarithmic functions. They are competent with the major features of a graphing calculator enabling them to analyze and solve real world problems.

#### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding, compute accurately, and respond with appropriate answers or procedures. They demonstrate capability by using a variety of problem-solving strategies.

Students at this level can apply algebraic and graphical concepts in a variety of contexts. They collect and organize data to determine functions of best fit to analyze, interpret, and solve real world problems. They are able to model and solve problems using various functions such as variations, quadratic, cubic, rational, and exponential. These students are able to identify several appropriate methods and techniques for solving problems.

## **Achievement Level Descriptors—NCCLAS Geometry EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I show minimal conceptual understanding, limited computational accuracy, and often respond with inappropriate answers or procedures. They rarely use problem-solving strategies successfully.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II show inconsistency in conceptual understanding, computational accuracy, and in their ability to respond with appropriate answers or procedures. They demonstrate limited use of problem solving strategies and experience difficulty with complex problems and developing geometric models.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III generally show conceptual understanding, computational accuracy, and respond with appropriate answers or procedures. They use a variety of problem-solving strategies. Students solve problems with a moderate level of complexity using one or more formulas or concepts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV consistently show a high level of conceptual understanding and computational accuracy, as well as a strong ability to respond with appropriate answers or procedures. Students model and solve problems with a high level of complexity using multiple formulas or concepts.

## **Achievement Level Descriptors—NCCLAS English I EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate the need to develop the composition and reading comprehension skills required in the English I North Carolina *Standard Course of Study*. Students inconsistently identify and correct rudimentary language convention errors (such as incorrect verb usage, end punctuation errors, double negatives, capitalization errors, and non-standard verb forms). Students show little to no evidence of reading skills and strategies required to comprehend a variety of ninth-grade-level expressive, informational, argumentative, critical, and literary texts.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent application of the composition and reading skills required in the English I North Carolina *Standard Course of Study*. Students inconsistently apply knowledge of grammar and language usage to identify and correct language convention errors in spelling, punctuation, and simple sentence structure. Students show an initial understanding of basic literary devices and elements (such as symbolism, plot structure, and figurative language). Students may also inconsistently apply strategies such as determining the meaning of unfamiliar vocabulary through context clues and identifying the main idea and supporting details. Students show inconsistent literal comprehension of a variety of ninth-grade-level expressive, informational, argumentative, critical, and other literary works.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III typically demonstrate composition and reading comprehension skills required by the English I North Carolina *Standard Course of Study*. Students typically demonstrate an understanding of conventional written expression by editing sentences for correctness, clarity, and style. Students can infer, generalize, draw conclusions, and make connections between texts. Students can analyze the impact of details and literary elements and devices (such as characterization, dialect, imagery, symbolism, main idea, purpose, context, and figurative language) on the work as a whole. Students are typically able to comprehend and analyze a variety of ninth-grade-level expressive, informational, argumentative, critical, and other literary texts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV demonstrate a strong command of the composition and reading comprehension skills required by the English I North Carolina *Standard Course of Study*. Students consistently demonstrate an understanding of conventional written expression by editing various sentence types for correctness, clarity, and style. By inferring, generalizing, drawing conclusions, and making connections between texts, students comprehend with breadth and depth a variety of ninth-grade-level texts. Students can analyze the impact of details and more complex literary elements and devices (such as style, diction, and tone) on the work as a whole. Students can analyze and evaluate purpose, audience,

context, and elements of communication particular to expressive, informational, critical, argumentative, and other literary texts.

## **Achievement Level Descriptors—NCCLAS Physical Science EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of physical science concepts. They have minimal understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of physical science concepts. They have limited understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of physical science concepts and are prepared for more advanced science courses. They have an adequate understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of physical science concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

## **Achievement Level Descriptors—NCCLAS Physical Science EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of physical science concepts. They have minimal understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of physical science concepts. They have limited understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of physical science concepts and are prepared for more advanced science courses. They have an adequate understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of physical science concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of mechanics, energy, electricity and magnetism, wave motion and the nature of sound and light, structure and properties of matter, and regularities in chemistry.

## **Achievement Level Descriptors—NCCLAS Biology EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of biological concepts. They have a minimal understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of biological concepts. They have a limited understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of biological concepts and are prepared for more advanced science courses. They have an adequate understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of biological concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

## **Achievement Level Descriptors—NCCLAS Biology EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of biological concepts. They have a minimal understanding of the physical, chemical, and cellular basis of life, the continuity of

life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of biological concepts. They have a limited understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of biological concepts and are prepared for more advanced science courses. They have an adequate understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of biological concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the physical, chemical, and cellular basis of life, the continuity of life and changes in organisms over time, classification systems and the structure and function of organisms, ecological relationships among organisms, and adaptive responses of organisms.

## **Achievement Level Descriptors—NCCLAS Chemistry EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of chemical concepts. They have minimal understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of chemical concepts. They have limited understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of chemical concepts and are prepared for more advanced science courses. They have an adequate understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of chemical concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of structure and properties of matter, regularities and energy changes in chemistry, and equilibrium and kinetics.

## **Achievement Level Descriptors—NCCLAS Chemistry EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of chemical concepts. They have minimal understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of chemical concepts. They have limited understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

**Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of chemical concepts and are prepared for more advanced science courses. They have an adequate understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

**Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of chemical concepts and are very well prepared for more advanced science courses. They have an advanced level of understanding of the structure and properties of matter, regularities and energy changes in chemistry, and the nature of chemical reactions.

## **Achievement Level Descriptors—NCCLAS Physics EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I do not have sufficient mastery of the concepts relating to physics. They have minimal understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of the concepts relating to physics. They have limited understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of the concepts relating to physics and are prepared for more advanced science courses. They have an adequate understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of concepts relating to physics and are very well prepared for more advanced science courses. They have an advanced level of understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, thermodynamics, and electricity and magnetism.

## **Achievement Level Descriptors—NCCLAS Physics EOC Assessment**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Achievement Level I demonstrate insufficient mastery of the concepts relating to physics. They have minimal understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Achievement Level II demonstrate inconsistent mastery of the concepts relating to physics. They have limited understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

**Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Achievement Level III demonstrate mastery of the concepts relating to physics and are prepared for more advanced science courses. They have an adequate understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

**Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Achievement Level IV demonstrate superior understanding of concepts relating to physics and are very well prepared for more advanced science courses. They have an advanced level of understanding of motion, forces, energy, impulse and momentum, wave motion and the nature of sound and light, and electricity and magnetism.

## **Achievement Level Descriptors—NCCLAS End-of-Course Assessment Civics and Economics**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Level I are able to describe the impact of the founding of the American nation and government; identify the organization and structure of national, state and local governments; list the principles of American government; identify the purpose and function of the American legal system; identify methods of civic and economic participation; identify the functions of the American economy at the national and personal levels; and list fundamental economic concepts.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Level II are able to explain the impact of the founding of the American nation and government; describe the roles of national, state and local governments; explain the principles of American government; explain the purpose and function of the American legal system; investigate opportunities for civic and economic participation; describe the functions of the American economy at the national and personal levels; and understand fundamental economic concepts.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Level III are able to analyze the impact of the founding of the American nation and government; analyze the organization and structure of national, state and local governments; apply the principles of American government to the functions of national, state, and local governments; analyze the purpose and function of the American legal system; investigate opportunities for civic and economic participation and apply learned skills and principles to various situations; explain the functions of the American economy at the national and personal levels; and apply fundamental economic concepts.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV are able to analyze the impact of the founding of the American nation on the development of American government; evaluate the effectiveness of the organization and structure of national, state and local governments; assess the relationship between the principles of American government and the functioning of national, state, and local governments; evaluate the effectiveness of the American legal system in maintaining order and justice; determine the effectiveness of civic and economic participation as applied to learned skills and principles; evaluate the functions of the American economy at the national and personal levels; and analyze fundamental economic concepts.

## **Achievement Level Descriptors –NCCLAS End-of-Course Assessment United States History**

### **Achievement Level I**

Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Students performing at Level I are able to identify the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs; and the significance of the developments of the twentieth century on the lives of Americans.

### **Achievement Level II**

Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Students performing at Level II are able to identify and describe the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

### **Achievement Level III**

Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Students performing at Level III are able to identify, describe, and analyze the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; analyze the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

### **Achievement Level IV**

Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Students performing at Level IV are able to identify, describe, analyze, and evaluate the effectiveness of the emerging institutions of the New Republic; the impact of technology on economic, political and social life in America; the trends and impact of economic, political, and social developments of the twentieth century; assess the competing forces of expansionism, nationalism, and sectionalism including the impact on domestic conflicts and social and political reforms; and the causes and effects of the United States' rise

as a world power, its role in world conflicts and trends in foreign affairs, and the significance of the developments of the twentieth century on the lives of Americans.

## **NCCLAS EOG Grade 5 Science Assessment Achievement Level Descriptors (Interim)**

### **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 demonstrate an insufficient level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 demonstrate a minimal level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 demonstrate an adequate level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

### **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 an advanced level of understanding of landforms, weather and climate, the interdependence of plants and animals, and forces and motion in technological designs.

## **NCCLAS EOG Grade 8 Science Assessment Achievement Level Descriptors (Interim)**

### **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 demonstrate an insufficient level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 demonstrate a minimal level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 demonstrate an adequate level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.

### **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 an advanced level of understanding of the hydrosphere, chemistry, evolutionary theories, cellular biology, and microbiology using scientific inquiry and technological design.



\*Person responsible for SBE agenda materials and SBE policy updates: Lucy Medlin, (919) 807-3771

**EXECUTIVE SUMMARY****Title:** Impact of Possible Revision of NC Standard Course of Study in Mathematics**Type of Executive Summary:**
 Action       Action on First Reading       Discussion       Information
**Policy Implications:**

- 
- Constitution \_\_\_\_\_
- 
- 
- General Statute # \_\_\_\_\_
- 
- 
- SBE Policy #HSP-F-002
- 
- 
- SBE Policy Amendment
- 
- 
- SBE Policy (New)
- 
- 
- APA # \_\_\_\_\_
- 
- 
- APA Amendment
- 
- 
- APA (New)
- 
- 
- Other \_\_\_\_\_

**Presenter(s):** Mr. Robert L. Logan (Associate Superintendent, Leadership and Innovation), Ms. Everly Broadway (Section Chief, Middle and Secondary Mathematics), and Ms. Donna Thomas (Consultant, Elementary Mathematics)

**Description:** The *North Carolina Standard Course of Study for Mathematics* was last revised in 2003. A schedule for revision was approved at the State Board of Education meeting in May 2007.

**Resources:** State

**Input Process:**

<u>When</u>	<u>What</u>
Oct-Nov. 2006	Survey regarding 2003 Mathematics SCS
Dec 18, 2006	Review Committee (parents, IHE reps, teachers, curriculum coordinators) recommend revision
January 4-6, 2007	Curriculum Review Team Session 1 (Expert Steering Committee)
January 31-February 2, 2007	Curriculum Review Team Session 2 (Expert Steering Committee) K-5 and 9-12 only
February 17 & 24, 2007	Information and Feedback sessions (3) NCCTM Regional Meetings North Carolina Wesleyan College; Rocky Mount, NC
March 12-13, 2007	Curriculum Review Team Session 3 (Expert Steering Committee)
April 18-19, 2007	Curriculum Review Team Session 4 (Expert Steering Committee)
May 15-16, 2007	Curriculum Review Team Session 5 (Expert Steering Committee) K-5 only
June 14-15, 2007	Curriculum Focus Group
June 30, 2007	<b>DRAFT 1 and Feedback Survey Available on-line</b>
July 1, 2007 – August 15, 2007	Public Review of Draft 1 •Website to download draft and survey to collect feedback (K-5, 6-8, 9-12) •Collect feedback at various summer institutes around the state (K-12)
August 13-14, 2007	Curriculum Focus Group 2
September 18, 2007	<b>DRAFT 2 and Feedback Survey Available on-line</b>
September 18, 2007 – October 19, 2007	Public Review of Draft 2 •Website to download draft and survey to collect feedback (K-5, 6-8, 9-12)
October 10-12, 2007	NCCTM Leadership meeting and State Math Conference: feedback sessions
November 7, 2007	<b>DRAFT 3 and Feedback Survey Available on-line</b>
November 7, 2007 – November 30, 2007	Public Review of Draft 3 •Website to download draft and survey to collect feedback (K-5, 6-8, 9-12)
November 5 & 15, 2007	Meetings with DPI Test Development staff regarding testing implications for K-5
December 10, 2007	Meeting with DPI Test Development staff regarding testing implications for 6-12

More Info at: [http://community.learnnc.org/dpi/math/archives/2007/06/standard\\_course.php](http://community.learnnc.org/dpi/math/archives/2007/06/standard_course.php)

**Stakeholders:** Teachers, administrators, students, parents, college/university professors, community members and Department of Public Instruction staff

**Timeline For Action:**

This item was submitted for discussion at the January 2008 GCS committee meeting and is returned for further discussion in February 2008 and will be returned for action in March 2008.

**Recommendations:**

The State Board of Education is asked to grant approval of the proposed revision to the *North Carolina Standard Course of Study for Mathematics K-12*.

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Audiovisual equipment requested for the presentation:

Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)  
Specify:   Data Projector  

Audio Requirements (computer or other, except for PA system which is provided)  
Specify: \_\_\_\_\_

Document Camera (for transparencies or paper documents – white paper preferred)  
\_\_\_\_\_

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Motion By: \_\_\_\_\_

Seconded By: \_\_\_\_\_

Vote: Yes \_\_\_\_\_ No \_\_\_\_\_

Abstain \_\_\_\_\_

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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\*Person responsible for SBE agenda materials and SBE policy updates:   Amy Betsill, 919-807-3817

**EXECUTIVE SUMMARY****Title:** Dropout Data Report, 2006-07**Type of Executive Summary:**

Action     
 Action on First Reading     
 Discussion     
 Information

**Policy Implications:**

- Constitution \_\_\_\_\_  
 General Statute #115C-12(27)  
 SBE Policy #HSP-Q-001  
 SBE Policy Amendment  
 SBE Policy (New)  
 APA # \_\_\_\_\_  
 APA Amendment  
 APA (New)  
 Other \_\_\_\_\_

**Presenter(s):** Mr. Robert Logan (Associate Superintendent, Innovation and School Transformation), Ms. Priscilla J. Maynor (Director, Agency Operations and Information Management) and Dr. Kenneth Gattis (Senior Research and Evaluation Coordinator, Agency Operations and Information Management)

**Description:**

G.S. 115C-12(27) directs the State Board of Education (SBE) to compile a report on dropout rates and report findings to the Joint Legislative Education Oversight Committee. The SBE requires that each LEA submit dropout data as requested by the Department of Public Instruction per SBE Policy GCS-Q-001.

This 2006-07 dropout report contains statewide and LEA analysis of dropout events and rates. The report disaggregates data by age, grade, gender, race, and dropout reason.

**Resources:**

N/A

**Input Process:**

The Research & Evaluation Section of Agency Operations and Information Management provides support on policies and procedures for LEA dropout prevention coordinators, LEA computer support staff, and charter school personnel for the annual dropout data collection. Day 20 of the current school year is the date of record for determining dropouts for the previous school year. The annual data collection begins in mid-October and extends into December. Most school districts report data to DPI either through SIMS and the AS400 or via the NC WISE dropout reporting system. DPI posts error/edit reports on a secure dropout website, and LEAs and charters retransmit data as needed to correct errors for individual schools. Dropout prevention coordinators, superintendents, and charter school directors submit online approvals of their dropout counts and rates.

**Stakeholders:**

State Board of Education, General Assembly, Department of Public Instruction, and public schools.

**Timeline For Action:**

The 2006-07 Dropout Data Report is presented to the State Board of Education for information. The full report will be distributed at the State Board meeting.

**Recommendations:**

N/A

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Audiovisual equipment requested for the presentation:

Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)  
Specify: \_\_\_\_\_

Audio Requirements (computer or other, except for PA system which is provided)  
Specify: \_\_\_\_\_

Document Camera (for transparencies or paper documents – white paper preferred)  
\_\_\_\_\_

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Motion By: \_\_\_\_\_

Seconded By: \_\_\_\_\_

Vote: Yes \_\_\_\_\_ No \_\_\_\_\_

Abstain \_\_\_\_\_

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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\*Person responsible for SBE agenda materials and SBE policy updates: Priscilla Maynor, 919-807-3408

**EXECUTIVE SUMMARY****Title:** Annual Study of Suspensions and Expulsions: 2006-07**Type of Executive Summary:**

Action     
 Action on First Reading     
 Discussion     
 Information

**Policy Implications:**

- Constitution \_\_\_\_\_  
 General Statute #115C-12(27)  
 SBE Policy # \_\_\_\_\_  
 SBE Policy Amendment  
 SBE Policy (New)  
 APA # \_\_\_\_\_  
 APA Amendment  
 APA (New)  
 Other \_\_\_\_\_

**Presenter(s):** Mr. Robert Logan (Associate Superintendent, Innovation and School Transformation), Ms. Priscilla J. Maynor (Director, Agency Operations and Information Management) and Dr. Kenneth Gattis (Senior Research and Evaluation Coordinator, Agency Operations and Information Management)

**Description:**

G.S. 115C-12(27) directs the State Board of Education to report in a disaggregated manner annually to the Joint Legislative Education Oversight Committee and the Commission on Improving the Academic Achievement of Minority and At-Risk Students the numbers of students who have dropped out of school, been suspended, been expelled, or been placed in an alternative program. The data in this report covers the requirements in this law except that regarding dropouts, which was provided in a separate report. Where possible, data for 2006-07 was combined with data from previous school years for trend information. Data in this report includes numbers of short-term suspensions, long-term suspensions, and expulsions for 2006-07, both overall and for major demographic subgroups. The data is reported separately overall for charter schools and LEAs. Also, a breakdown of suspensions and expulsions by gender and ethnicity is provided for individual charter schools and LEAs.

**Resources:**

N/A

**Input Process:**

Data was collected by way of the USDDC web-based disciplinary data collection system and by third-party disciplinary data collection software. NCWISE schools entered data directly into the eSIS disciplinary module, and the data was later transferred into the USDDC.

Data from the LEAs and charter schools were compiled and verified by TOPS, Urban Affairs & Community Services at NC State University, where they were first used to generate statistics for the 2006-07 Report on School Crime & Violence and then were provided to DPI Agency Operations and Information Management for this analysis.

**Stakeholders:**

State Board of Education, DPI, General Assembly, all public schools

**Timeline For Action:**

The report is presented to the State Board of Education for information. The full report will be distributed at the State Board meeting.

**Recommendations:**

N/A

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Audiovisual equipment requested for the presentation:

Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)  
Specify: \_\_\_\_\_

Audio Requirements (computer or other, except for PA system which is provided)  
Specify: \_\_\_\_\_

Document Camera (for transparencies or paper documents – white paper preferred)  
\_\_\_\_\_

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Motion By: \_\_\_\_\_

Seconded By: \_\_\_\_\_

Vote: Yes \_\_\_\_\_ No \_\_\_\_\_

Abstain \_\_\_\_\_

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Postponed \_\_\_\_\_ Revised \_\_\_\_\_

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\*Person responsible for SBE agenda materials and SBE policy updates: Priscilla Maynor, 919-807-3408