

Standard Setting Report for the

North Carolina EXTEND1 Assessments

Final

August 27, 2013

Submitted by:

Chad Buckendahl Senior Psychometrician Director of Education Services 2467 Cordoba Bluff Ct. Las Vegas, NV 89135 Phone/Fax: 702.586.7386 Mobile: 402.770.0085 Chad.Buckendahl@alpinetesting.com

Table of Contents

	Acknowledgements	4
	Purpose and Overview	5
	Standard Setting Report for the EXTEND1 Assessments	6
	North Carolina EXTEND1 Assessments	6
	Standard Setting Workshop	6
	Methods and Procedures	6
	Results	9
	Conclusions	20
	References	20
	Appendix A: Recommended Achievement Level Descriptors	21
	English Language Arts	21
	Mathematics	36
	Science	52
	Appendix B: Graphical Display of Standard Setting Results by Subject and Grade	60
	English Language Arts	60
	Mathematics	63
	Science	66
	Mixed Subjects	68
	Appendix C: Impact Tables by Subject Area	69
	English Language Arts	69
	Mathematics	70
	Science	71
	Mixed Subjects	72
	Appendix D: Explanation of Guessing Adjustment	73
	Appendix E: Evaluation Comments	77
	Elementary Panel	77
	Middle School Panel	78
	High School Panel	79
-	NCDPI NCEXTEND1 Standard Setting Report Page 2 of 81	
	Alaine Testing Colutions, last and NCDDI	

Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential Page 2 of 81 August 12, 2013



Statement of Confidentiality

The information provided in this report is proprietary and confidential. It is meant to be used by NCDPI solely for the purpose of developing the NCEXTEND1 examination. The information may not be duplicated, distributed, or used without the permission of Alpine Testing Solutions, Inc.



Acknowledgements

We would like to acknowledge several people who assisted us with the Standard Setting Workshop. Panelists of select educators make up the largest contingent of people whose work contributed to the outcome of the standard setting workshops. They participated in the activities that resulted in the cut score recommendations for each of the North Carolina EXTEND1 Assessments. The success of the workshops was due, in large part, to their efforts.

We also appreciate the assistance and support of Ms. Hope Lung, Dr. Jami-Jon Pearson, and the rest of the team from the North Carolina Department of Public Instruction during the preparation and execution of this standard setting workshop.



Purpose and Overview

The purpose of this report is to document the procedures and analyses undertaken to assist the North Carolina Department of Public Instruction (NCDPI) in recommending achievement levels descriptors and cut scores for the North Carolina EXTEND1 Assessments. The included assessments were for Reading (grades 3-8 and 10), Mathematics (grades 3-8 and 10), Science (grades 5, 8, and 10), and the Multi-Subject assessment (grade 11).

This report summarizes the procedures and the results of standard setting workshops conducted July 30-August 1, 2013. The first part of the results is the recommended Achievement Level Descriptors drafted by the standard setting panelists. These descriptors illustrate the expected knowledge, skills, and abilities of students by achievement level, grade level, and subject area. The second set of results includes the recommended cut scores for each assessment within the EXTEND1 program.



Standard Setting Report for the EXTEND1 Assessments

North Carolina EXTEND1 Assessments

The North Carolina EXTEND1 program encompasses the alternate assessments for students with the most severe cognitive and physical disabilities. The grade level curriculum and test content are built to represent the progression and continual development of knowledge and skills across the successive grade levels. Each EXTEND1 assessment in English Language Arts (ELA) and Mathematics (Math) is aligned with the NCDPI Extended Content Standards based on the *Common Core State Standards* (CCSS). Science assessments are based on the Extended Content Standards of the *North Carolina Science Essential Standards*. The results of the EXTEND1 assessments are used to evaluate students' abilities and classify them into one of four achievement levels (i.e., Levels 1, 2, 3, and 4).

Standard Setting Workshop

The standard setting workshop for the North Carolina EXTEND1 assessments was conducted July 30 – August 1, 2013 in Raleigh, NC. There were two goals of this workshop. The first goal was to produce a set of recommended achievement level descriptors that summarized the expected knowledge, skills and abilities of students at each achievement level. The second goal was to elicit recommended cut scores that define the expected performance for students within each achievement level consistent with the achievement level descriptors.

The subsequent sections of this report describe the procedures used to accomplish each of these goals. Also included in this report is a summary of the results produced from the standard setting workshops. These results should be considered as recommendations to staff members at NCDPI who will further communicate with the State Board of Education to set the final achievement level descriptors and cut scores for each achievement level across grade levels and subject areas.

Methods and Procedures

Workshop Panelists

Prior to the workshop, NCDPI provided information about eligible panelists who were then recruited by Alpine to participate in each grade span panel. Each grade span panel included 14-15 content experts from across the state (Jaeger, 1991; Raymond & Reid, 2001). Each panel represented substantial experience and included teachers who had experience with the Extended Content Standards, teachers who had experience working with students with disabilities, and general education teachers across subject areas. The experience and qualifications of the panelists are noted in Table 1 below. In addition, subsets of the elementary and middle school panelists were asked to participate in a facilitated discussion of the vertical continuity of the impact of the recommended cut scores (see description of vertical moderation process below). Specific demographic information of this subgroup is also provided in Table 1.

Page 6 of 81 August 12, 2013



	Number of		Average Years of			
Panel	Panelists	Bachelors	Masters	Doctorate	Experience	
Elementary	15	6	9	0	13.3	
Middle School	15	6	8	1	14.3	
High School	14	5	8	1	16.7	
Vertical	12	4	8	0	12.75	
Moderation	12	4	0	0	12.75	
		Experience		Gender		
	Experience	Experience	General	Male	Female	
	with Extended	with SwD	Education			
	Curriculum	(not EC)	Teacher			
Elementary	12	1	2	3	12	
Middle School	13	0	2	2	13	
High School	3	8	3	3	11	
Vertical Moderation	10	0	2	4	8	

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

Workshop Orientation

On the first day of the workshop, a general orientation was held for all panelists. Hope Lung from NCDPI welcomed the group. Chad Buckendahl from Alpine Testing Solutions (Alpine) provided an orientation that covered the purpose of the workshop, the goals of the workshop, and the processes that would be used to accomplish each goal. Following the orientation, panelists worked within smaller grade span panels for the remainder of the workshop. Chad Buckendahl led the High School panel, Sarah Hughes led the Middle School panel, and Laura Brooks led the Elementary panel.

Achievement Level Descriptors

To begin creating the achievement level descriptors (ALDs), panelists were divided into table groups with representation from the diversity of the participants. Each group was assigned one or two sets of ALDs to draft based on general policy level descriptors, an example provided by NCDPI, and an example presented from another state's ALDs. In addition, the panelists were told that their ALDs should focus at the transition point or threshold from one achievement level to the next (as opposed to policy, range, or reporting ALDs). This focus was to help panelists begin to think about how students perform at the transition points between adjacent levels of achievement. Within their respective subgroup, they listed ideas for each achievement level of the types of things a student at that level could do related to the Extended Content Standards for that grade level and subject area. The draft ALDs were then transferred to an electronic format so they could be shared with each grade level panel with printed copies distributed at multiple stages of drafting. Within each panel, the ALDs were reviewed for clarity and continuity across grade levels and subject areas. As part of the ALD development process, a vertical articulation process was also included. Specifically, this included members of the elementary school grade span panel meeting with members of the middle school grade span panel to discuss the transition from grades 5 to 6 for ELA and Mathematics. Similar discussions were held with the middle school grade span

Page 7 of 81 August 12, 2013



panel and the high school grade span panel for ELA and Mathematics to ensure continuity and increasing expectations across the grade levels. Feedback from these cross-panel discussions were then shared with the original grade span groups to inform any additional revisions to the ALDs. Of note with the ALDs created for the high school panel, the ELA and Mathematics ALDs were identical for Grades 10 and 11. The expectations associated with the ELA and Mathematics for Grade 11 were judged by the panel to be undifferentiated from the what was expected in the primary high school assessments in these subject areas. However, for Science, there was a shift from Biology-specific expectations in Grade 10 to Life Science-specific expectations as part of the mixed subject assessment in Grade 11.

Standard Setting

The recommended range of cut scores is based on the Extended Angoff method (Plake & Hambleton, 2001). In this process, panelists are presented with the assessment just as students would see it and are asked to make item-level judgments. For each item, they are asked to imagine the "target student" and make their best judgment as to what score the student would likely achieve on each item (0 points, 1 point, 2 points). In this application, there were three groups of target students: the student that is barely level 2, the student that is barely level 3 and barely level 4. By focusing on the transition points between the achievement levels (e.g., barely level 3 differentiates between levels 2 and 3), panelists demonstrate their expectations for students who represent the minimum level of knowledge and skills at each of the upper achievement levels. These expectations are then use to represent the minimum score required for each of the upper achievement levels (i.e., the cut scores).

Panelists recorded these judgments on specially designed rating forms which the facilitator collected and used to compute the panel-level statistics. Rating forms that included their individual recommended cut scores were returned to panelists. The facilitator also shared with the panelists the group median cut scores, the range of cut scores across the panel (including a graphical representation of the distribution), the estimated impact if the median cut scores were used (i.e., what percent of students would be classified at or above each achievement level), and the average item score from the spring 2013 administration year. In addition, the group discussed two items for each assessment – one that was generally easier for students and one that was more difficult – to help with understanding of how to apply the ALDs to the rating task. After explaining this feedback, the facilitator instructed the panelists to review their first round of ratings and make any modifications they felt necessary in their second round of ratings. The second round ratings were used to compute the final recommended cut scores.

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

Vertical Moderation Discussion

As noted above, a subset of panelists from the elementary and middle school panels then convened on the afternoon of the last day of the study to discuss the continuity across grade levels within a subject area. Chad Buckendahl facilitated this discussion which included English Language, Mathematics, and Science as separate

Page 8 of 81 August 12, 2013



topics. After showing panelists the impact results from the second round of ratings, the panel discussed a number of questions regarding interpretation and explanation of the results. Some of the questions that were posed to the group during this discussion included whether the impact across grade levels for a given subject area appeared reasonable. In addition, panelists were asked whether any grade levels appeared unreasonably high or low in terms of expectations. Some of the context that was included in the discussion was the alignment of the ELA and Math assessments to the Extended Content Standards of the Common Core State Standards.

In general, panelists provided feedback suggesting that expectations from elementary to middle school and eventually high school increased at a trajectory that is steeper than the typical progression of development for students who take the EXTEND1 assessments. Further, there is a shift in cognitive complexity from more concrete to more abstract concepts in moving from elementary to middle school, particularly grades 6 to 7 in mathematics. There were some comments regarding the performance of students in the elementary grade levels in ELA being potentially higher than expected given the change in the expectations for students in the Extended Content Standards. Another point raised by panelists in the discussion was the influence of guessing on student performance. Given the design of the assessment administration, students had a reasonable probability of earning points on a given item through chance. There was consensus, almost unanimity, among the panelists that students would guess on items. This additional factor led us to consider including a guessing adjustment in the final recommendations to ensure that scores correspond with the meaning of the achievement levels.

Results

Achievement Level Descriptors

The draft achievement level descriptors are included in Appendix A by grade level and subject areas. We recommend that NCDPI evaluate these draft descriptors and make any modifications necessary for consistency. However, substantive changes to expectations would have the effect of confounding the interpretation of the cut scores because these were the ALDs that panelists used to make their recommended judgments on the assessments.

Standard setting

The standard setting included two rounds of judgments. The results for each grade level are presented in Tables 2-5 for English Language Arts, Mathematics, Science, and the Multi-Subject assessments, respectively. From the first round of ratings, each table includes the median recommended cut score (R1-Median) for each level along with the estimated impact (R1-Impact, percent of students at or above each performance level). From the second round of ratings, each table includes the median recommended cut score (R2-Median) for each level along with the estimated impact (R2-Impact, percent of students at or above each performance level), the standard deviation of the recommended cut scores (R2-SD) which represents the variability among the panel, and the range of recommended cut scores (R2-Range) which was estimated using the variability among the panel. Specifically, the range of recommended cut scores is estimated as:

High End of the Range = Median + 2 Standard Error of the Median

Low End of the Range = Median - 2 Standard Error of the Median

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 9 of 81 August 12, 2013



where,

Standard Error of the Median = 1.25 * Stdev/sqrt(N).

The full results are shown graphically in Appendix B. Specifically, these stacked dot plots display the recommended cut score for each panelist for each performance level.

Level	Result	3	4	5	6	7	8	10
	R1-Median	10	8	7	11	11	12	6.5
	R1-Impact	94%	97%	96%	95%	94%	92%	97%
2	R2-Median	10	8	7	11	11	11	8.5
	R2-Impact	94%	97%	96%	95%	94%	94%	96%
	R2-SD	3.20	3.02	2.15	3.71	3.72	3.94	5.14
	R2-Range	8-12	6-10	6-8	9-13	9-13	8-14	5-12
	R1-Median	22	20	18	21	22	21	16
	R1-Impact	52%	60%	66%	52%	48%	48%	75%
3	R2-Median	20	20	17	20	22	20	18
	R2-Impact	60%	60%	72%	58%	48%	53%	61%
	R2-SD	3.22	3.58	2.6	2.47	2.31	2.23	4.45
	R2-Range	18-22	18-22	15-19	18-22	21-23	19-21	15-21
	R1-Median	27	26	26	27	25	26	23.5
	R1-Impact	34%	26%	24%	16%	34%	18%	30%
4	R2-Median	28	26	25	27	25	26	25
	R2-Impact	29%	26%	29%	16%	34%	18%	26%
	R2-SD	1.47	2.32	1.98	2.19	1.79	2.02	2.18
	R2-Range	27-29	25-27	24-26	26-28	24-26	25-27	24-26

Table 2. ELA Standard Setting Results by Grade and Performance Level



Table 3. Mathematics Standard Setting Results by Grade and Performance Level								
Level	Result	3	4	5	6	7	8	10
	R1-Median	7	7	6	8	12	12	5
	R1-Impact	96%	97%	96%	97%	93%	92%	97%
2	R2-Median	7	7	6	9	12	10	6
	R2-Impact	96%	97%	96%	96%	93%	95%	96%
	R2-SD	2.64	1.64	2.02	4.22	3.06	2.08	2.95
	R2-Range	5-9	6-8	5-7	6-12	10-14	9-11	4-8
	R1-Median	20	19	19	22	22	22	15
	R1-Impact	46%	52%	50%	32%	29%	19%	77%
3	R2-Median	20	18	19	20	23	21	15
	R2-Impact	46%	59%	50%	47%	22%	26%	77%
	R2-SD	3.87	2.72	3.17	4.22	1.77	2.2	3.3
	R2-Range	18-22	16-20	17-21	17-23	22-24	20-22	13-17
	R1-Median	26	26	25	27	27	27	22
	R1-Impact	13%	13%	15%	5%	6%	2%	21%
4	R2-Median	27	26	25	27	28	27	23
	R2-Impact	7%	13%	15%	5%	4%	2%	15%
	R2-SD	3.10	2.08	2.40	2.54	1.61	2.33	2.49
	R2-Range	25-29	25-27	23-27	25-29	27-29	25-29	21-25

Table 3. Mathematics Standard Setting Results by Grade and Performance Level

Table 4. Science Standard Setting Results by Grade and Performance Level

		0		
Level	Result	5	8	10
	R1-Median	8	10	9
	R1-Impact	96%	96%	96%
2	R2-Median	9	11	9
	R2-Impact	96%	96%	96%
	R2-SD	1.87	2.90	4.53
	R2-Range	8-10	9-13	6-12
	R1-Median	21	21	19
	R1-Impact	54%	58%	62%
3	R2-Median	21	22	19
	R2-Impact	54%	54%	62%
	R2-SD	1.87	2.50	4.60
	R2-Range	20-22	20-24	16-22
	R1-Median	27	27	25
	R1-Impact	18%	28%	20%
4	R2-Median	25	27	25
	R2-Impact	30%	28%	20%
	R2-SD	1.66	1.78	2.56

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 11 of 81 August 12, 2013



Level	Result	11
	R1-Median	9
	R1-Impact	96%
2	R2-Median	10
	R2-Impact	95%
	R2-SD	3.00
	R2-Range	8-12
	R1-Median	19
	R1-Impact	60%
3	R2-Median	20
	R2-Impact	54%
	R2-SD	3.67
	R2-Range	18-22
	R1-Median	26
	R1-Impact	20%
4	R2-Median	26
	R2-Impact	20%
	R2-SD	1.97
	R2-Range	25-27

Table 5. Multi-Subject Standard Setting Results by Grade and Performance Level

Standard Setting Guessing Adjustment

Given the nature of the administration and scoring of the NCEXTEND1 assessments (e.g., 3 choices to select from followed by a second chance with only two choices), there is a reasonable probability of students earning some points on this exam by simply guessing. Because the standard setting panelists were instructed to estimate how the students would perform on the items using their knowledge, skills, and abilities, without guessing, the suggested adjustment applied is based on the probability of a student earning points on those items that they would answer incorrectly due to lack of knowledge, skills, or abilities. A full description of the guessing adjustment can be found in Appendix D.

This guessing adjustment was applied consistently across grade levels and subject areas with one notable exception, Grade 10 Mathematics. In reviewing the median recommended results from the high school panel, we observed that for the Level 3 cut score (i.e., the one that communicates that students are meeting the standard), the panel's median recommendation was at the chance level – 15 points of a possible 30. After reviewing recommendations across grade levels and subject areas, we noted that this was the only recommendation that occurred at the chance or lower level. As a result, Alpine recommended a two phase guessing adjustment for the Grade 10 Mathematics Level 3 cut score. Specifically, as a first phase of the adjustment, we recommended raising the group's recommendation to chance plus one score point which resulted in a median recommendation of 16 as opposed to the group's initial recommendation of 15. Given the standard error of the median associated with the group's recommendations, this increase falls within the 95%

Page 12 of 81 August 12, 2013



confidence interval for what we might expect. The second phase was to then apply the guessing adjustment described above that was applied across grade levels and subject areas. This additional step for the Grade 10 Mathematics assessment at Level 3 was intended to be consistent with expectations for meeting the standard across grade levels, but to also apply the same statistical adjustment.

The results of the guessing adjustment are shown in Tables 6-9 for English Language Arts, Mathematics, and Science, respectively. Each table shows the Round 2 recommended median recommended cut scores along with these same values adjusted for guessing and the impact (percent of students at or above a given achievement level) of both. In addition, graphical representations that show the impact of the recommended cut scores along with the adjusted cut sores are interspersed within these tables (Figures 1-4).



Level	Result	3	4	5	6	7	8	10
	Median	10	8	7	11	11	11	9
2	Median-Adj	18	17	17	18	18	18	17
2	Impact	93.80%	96.89%	95.70%	94.93%	94.22%	93.65%	95.86%
	Impact-Adj	68.70%	73.40%	72.28%	68.53%	66.70%	65.28%	68.56%
	Median	20	20	17	20	22	20	18
	Median-Adj	23	23	20	23	24	23	21
3	Impact	59.50%	59.53%	72.28%	58.04%	47.61%	53.01%	61.11%
	Impact-Adj	49.30%	41.51%	53.80%	39.95%	37.71%	37.34%	43.97%
	Median	28	26	25	27	25	26	25
4	Median-Adj	29	27	26	28	26	27	26
4	Impact	29.30%	26.04%	29.37%	16.26%	33.76%	17.87%	26.24%
	Impact-Adj	21.80%	19.62%	24.43%	10.84%	28.81%	12.70%	21.87%

Table 6. ELA Recommended Cut Scores and Impact Adjusted for Guessing

Figure 1. Impact of ELA Recommended Cut Scores and Guessing Adjustment (Adj)





Result	3	4	5	6	7	8	10
Median	7	7	6	9	12	10	6
Median-Adj	17	17	17	17	18	18	17
Impact	96.00%	97.27%	96.25%	96.42%	93.03%	95.01%	96.46%
Impact-Adj	67.60%	69.27%	64.56%	70.33%	59.95%	49.75%	59.62%
Median	20	18	19	20	23	21	16
Median-Adj	23	21	22	23	25	23	20
Impact	45.50%	58.91%	49.73%	47.03%	22.09%	25.97%	68.00%
Impact-Adj	27.20%	38.36%	28.48%	24.52%	13.57%	14.13%	34.59%
Median	27	26	25	27	28	27	23
Median-Adj	28	27	26	28	29	28	25
Impact	7.00%	13.48%	14.84%	5.15%	3.85%	2.28%	14.99%
Impact-Adj	4.00%	11.12%	10.07%	2.62%	2.11%	1.44%	8.62%
	Median Median-Adj Impact Impact-Adj Median Median-Adj Impact-Adj Median Median-Adj Impact	Median 7 Median-Adj 17 Impact 96.00% Impact-Adj 67.60% Median 20 Median-Adj 23 Impact 45.50% Impact-Adj 27.20% Median-Adj 28 Impact 7.00%	Median 7 7 Median-Adj 17 17 Impact 96.00% 97.27% Impact-Adj 67.60% 69.27% Median 20 18 Median-Adj 23 21 Impact 45.50% 58.91% Impact-Adj 27.20% 38.36% Median 27 26 Median-Adj 28 27 Impact 7.00% 13.48%	Median776Median-Adj171717Impact96.00%97.27%96.25%Impact-Adj67.60%69.27%64.56%Median201819Median-Adj232122Impact45.50%58.91%49.73%Impact-Adj27.20%38.36%28.48%Median272625Median-Adj282726Impact7.00%13.48%14.84%	Median7769Median-Adj17171717Impact96.00%97.27%96.25%96.42%Impact-Adj67.60%69.27%64.56%70.33%Median20181920Median-Adj23212223Impact45.50%58.91%49.73%47.03%Impact-Adj27.20%38.36%28.48%24.52%Median27262527Median-Adj28272628Impact7.00%13.48%14.84%5.15%	Median776912Median-Adj1717171718Impact96.00%97.27%96.25%96.42%93.03%Impact-Adj67.60%69.27%64.56%70.33%59.95%Median2018192023Median-Adj2321222325Impact45.50%58.91%49.73%47.03%22.09%Impact-Adj27.20%38.36%28.48%24.52%13.57%Median2726252728Median-Adj2827262829Impact7.00%13.48%14.84%5.15%3.85%	Median77691210Median-Adj171717171818Impact96.00%97.27%96.25%96.42%93.03%95.01%Impact-Adj67.60%69.27%64.56%70.33%59.95%49.75%Median201819202321Median-Adj232122232523Impact45.50%58.91%49.73%47.03%22.09%25.97%Impact-Adj27.20%38.36%28.48%24.52%13.57%14.13%Median272625272827Median-Adj282726282928Impact7.00%13.48%14.84%5.15%3.85%2.28%

Table 7. Mathematics Recommended Cut Scores and Impact Adjusted for Guessing

Figure 2. Impact of Mathematics Recommended Cut Scores and Guessing Adjustment (Adj)



Page 15 of 81 August 12, 2013



Level	Result	5	8	10
	Median	9	11	9
2	Median-Adj	17	18	17
2	Impact	96.06%	95.60%	96.45%
	Impact-Adj	75.09%	75.21%	74.32%
	Median	21	22	19
	Median-Adj	23	24	22
3	Impact	54.49%	53.98%	61.66%
	Impact-Adj	42.22%	45.18%	40.24%
	Median	25	27	25
4	Median-Adj	26	28	26
4	Impact	30.13%	27.66%	20.47%
	Impact-Adj	24.63%	19.80%	15.86%

Table 8. Science Recommended Cut Scores and Impact Adjusted for Guessing

Figure 3. Impact of Science Recommended Cut Scores and Guessing Adjustment (Adj)



Page 16 of 81 August 12, 2013



Result	11
Median	10
Median-Adj	18
Impact	94.87%
Impact-Adj	66.37%
Median	20
Median-Adj	23
Impact	54.17%
Impact-Adj	35.04%
Median	26
Median-Adj	27
Impact	19.64%
Impact-Adj	14.51%
	Median Median-Adj Impact Impact-Adj Median Median-Adj Impact Impact-Adj Median Median-Adj Impact

Table 9. Mixed Subjects Recommended Cut Scores and Impact Adjusted for Guessing

Figure 4. Impact of Mixed Subjects Recommended Cut Scores and Guessing Adjustment (Adj)



Evaluation

Each panelist responded to a series of evaluation questions about the various components of the workshop. The median response for each panel for each evaluation question is shown in Table 10. The overall results suggest that each panel felt the workshop was very successful and felt the workshop was very successful in arriving at appropriate recommended cut scores. In addition to the closed-ended questions, panelists were allowed to provide comments about the workshop. These comments are included in Appendix E.

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 17 of 81 August 12, 2013



	Grade-Level Panel			
	Elementary	Middle	High School	
Successfulness of training [6=Very Successful to 1= Very U	Jnsuccessful]			
1a. Successfulness of orientation	5	5	5	
1b. Successfulness of training on Yes/No method	5	5	4.5	
1c. Successfulness of description of target students	5	5	5	
1d. Successfulness of practice with method	6	5	5	
1e. Successfulness of interpretation of feedback	5	5	5	
1f. Successfulness of overall training	5	5	5	
Time allocated to training [6= Totally Adequate to 1=Total	ly Inadequate]			
2a. Time – orientation	6	6	5	
2b. Time – training on Yes/No method	6	4	5	
2c. Time – description of target students	6	5	5	
2d. Time – practice with method	6	5	5	
2e. Time – interpretation of feedback	6	5	5	
2f. Time – Overall training	6	5	5	
Round One Yes/No Judgments				
 Confidence in predictions [4=Confident to 1=Not at all confident] 	4	3	3	
4. Time for predictions[4=More than enough time to 1=More time needed]	4	3	3	
Round Two Yes/No Judgments				
 Confidence in predictions [4=Confident to 1=Not at all Confident] 	4	4	4	
 Time for predictions [4=More than enough time to 1=More time needed] 	4	3	3	
Overall workshop				
 Confidence in cut scores [4=Confident to 1=Not at all Confident] 	3.5	4	3	
8. Most useful feedback data <i>(mode reported)</i> [4=Panel summary, 3=Group discussions, 2=Impact, 1=P-values]	3	2	1	
9. Least useful feedback data (mode reported) [4=Panel summary, 3=Group discussions, 2=Impact 1,=P-values]	4	4	3	
10. Overall success [4=Very Successful to 1= Very Unsuccessful]	4	4	3	

Table 10. Median Evaluation Responses

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 18 of 81 August 12, 2013



11. Overall organization	Λ	Λ	2
[4=Very Organized to 1=Very Unorganized]	4	4	J



Conclusions

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

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

References

- Angoff, W. H. (1971). Scales, norms, and equivalent scores. In R. L. Thorndike (Ed.), *Educational Measurement*, (2nd ed., pp. 508-600), Washington, DC: American Council on Education.
- Jaeger, R. M. (1991). Selection of judges for standard setting. *Educational Measurement: Issues and Practices*, 10(2), 3-6, 10, 14.
- Kane, M. T. (1994). Validating the performance standards associated with passing scores. *Review of Educational Research*, 64, 425-461.
- Kane, M. T. (2001). So much remains the same: Conception and status of validation in setting standards. In G. J.
 Cizek (Ed.) Setting Performance Standards: Concepts, Methods, and Perspectives (pp. 53-88). Mahwah,
 NJ: Lawrence Erlbaum Associates.
- Plake, B. & Hambleton, R. (2001). The analytic judgment method for setting standards on complex performance assessments. In G. J. Cizek (Ed.) Setting Performance Standards: Concepts, Methods, and Perspectives (pp. 283-312). Mahwah, NJ: Lawrence Erlbaum Associates.

Page 20 of 81 August 12, 2013



Raymond, M. R. & Reid, J. B. (2001). Who made thee a judge? Selecting and training participants for standard setting. In G. J. Cizek (Ed.) Setting Performance Standards: Concepts, Methods, and Perspectives (pp. 119-157). Mahwah, NJ: Lawrence Erlbaum & Associates, Inc.

Appendix A: Recommended Achievement Level Descriptors

English Language Arts

ELA Grade 3

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 3 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Given a scenario from text, interpret feelings of characters
- Identify and sequence beginning, middle and end of story presented
- Identify from which point of view the story is written
- Independently read familiar and unfamiliar words with accuracy to support comprehension
- Use a variety of sentence structures and supporting details to convey thoughts on a given topic
- Communicate for the purpose of receiving feedback to further own understanding

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 3 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Recall key details, characters and events in a text or selection
- Identify similarities in characters or topics among two texts
- Employ strategies to answer factual questions about a text (e.g. visual aid, revisiting text; active engagement)
- Read and comprehend simple sentences composed of CVC or common sight words
- Given a topic, compose and produce a product
- Communicate with peers and adults using multi-turn exchanges and use questioning strategies to clarify information
- Use correct plural/singular nouns, adjectives and verb tenses to achieve desired outcomes when writing or communicating
- Apply new vocabulary to make real-life connections between words and their use

Page 21 of 81 August 12, 2013



Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 3 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Given choices, make a selection to answer simple questions
- Compose sentence with subject and verb
- Communicate preferences given a series of choices
- Make simple requests to meet needs
- Identify basic sight words
- Identify words to complete a sentence

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 3 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Offer indication of attending to text
- When prompted, express thoughts using single word or object response
- Follow teacher model to make a selection
- Communicate needs/wants through nonconventional needs
- Match words to complete a sentence
- Match basic sight words



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 4 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Explain how details relate to the main idea in the text
- Identify key features of a variety of text types
- Compare and contrast personal experience with one experience in the text
- Assimilate information from a variety of sources to support an opinion (text, conversations, etc.)
- Given a passage or selection, independently read with accuracy to support comprehension
- Explain an opinion to persuade an audience

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 4 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Locate and identify details and key information in a text that supports the main topic
- Identify a variety of text types (e.g. poem, play)
- Identify details and key information
- Relate text to personal experience
- Compare and contrast two texts on the same topic
- Use letter sound knowledge and context clues when encountering unfamiliar works in a text
- Select a topic and generate ideas and details to support their opinion
- Use correct comparative and superlative adjectives, prepositions and possessive pronouns to achieve desired outcomes when writing or communicating
- Use newly acquired vocabulary to complete sentences or in context across the content areas

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 4 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify the main topic
- Given a teacher model, will match a variety of text types
- Describe a personal experience
- Provide similarities between two texts on the same topic
- Use initial consonant sound similarities to read unknown words

Page 23 of 81 August 12, 2013



- Select a topic and give opinion
- Given possessive pronouns, determine ownership
- Match new vocabulary to meaning and/or picture

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 4 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Track text with gaze or other tracking tool
- Chose preferences from a variety of text types
- Match objects to personal experience
- Identify text or other visual stimuli to a given topic
- Imitate letter-sound connections
- Choose preferences from a variety of topics
- Manipulates objects to show spatial concepts
- Recognizes that pictures are representative of tangible objects



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 5 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Use multimedia elements from the text to make inferences about the problem
- Categorize information that is relevant to text-based topics
- Given a short passage or selection, independently read with accuracy to demonstrate comprehension
- Use multiple word combinations to provide facts and details to support opinion
- Write a narrative providing at least 3 sequential events and a sense of closure
- Participate in discussions with peers or adults by taking turns and then summarizing the key points of others
- Apply correct grammar, punctuation and spelling patterns when writing

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 5 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Given a text selection, identify the problem using specific details (i.e. quotes)
- Use correct academic/content vocabulary to communicate in speaking or writing to demonstrate understanding
- Given specific evidences from a text, determine which evidence supports which topic
- Apply word analysis skills to decode and read
- Use 2-3 word combinations to provide reasons, facts or details to support opinion
- Compose a simple narrative with at least 3 events in sequence using 2-3 word combinations
- Participate in discussions with a communication partner by listening to and sharing information
- Use correct conjunctions, plural/singular nouns with matching verbs, and correct verb tenses to achieve desired outcome when writing or communicating
- Employ newly acquired vocabulary from content areas in speaking and writing

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 5 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

• Identify the problem within a text

Page 25 of 81 August 12, 2013



- Match newly acquired content specific vocabulary within a topic
- Determine one text based evidence that supports the main idea of the text
- Uses letter-sound connection to read words
- Form an opinion on a given topic and provide one supporting reason
- Complete 3 events in sequence to form a narrative
- Communicate using multiple turns with communications partner
- Utilize simple verb-noun subject- predicate patterns to convey ideas

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 5 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- When provided choices, will choose the problem from the story
- Choose picture related to a topic (i.e. "show me a picture of a thunderstorm")
- Attends to text when read to
- Indicate an opinion (i.e. preference for item, pushing something away when he/she doesn't like it)
- Respond to a communication partner (may use eye gaze, gestures, switch, etc.)
- Match picture of a familiar settings/environment in order to print communicate a real life experience to complete a sentence (i.e. "I like to...")
- Produce name on command on assignments



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 6 and are academically *well prepared to engage successfully* in further studies in this content area.

A student performing at Grade 6 will use adapted age appropriate materials to complete tasks including:

- Determine characters response to problems or themes (ex. minor, major etc.)
- Compare ideas across stories, poems, or drama
- Infer authors purpose in multimedia (Explicit =add one egg, Inferred use raw egg, crack it open)
- Manipulate information in correct sequential order
- Use correct subject/verb agreement in written or spoken language
- Apply the correct ending punctuation
- Compare two texts to determine fact or opinion

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 6 and are academically prepared to engage successfully in further studies in this content area.

A student performing at Grade 6 will use adapted age appropriate materials to complete tasks including:

- Describe characters actions in a story
- Describe what the narrator or speaker in a story is thinking or feeling
- Determine events or actions that are stated explicitly (add one egg)
- Determine sequential order from informational text
- Label parts of speech (ex. Nouns, verbs, adjectives) in written text
- Select the correct ending punctuation to a sentence
- Determine fact and opinion statements in text

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 6 and *will likely need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 6 will use adapted age appropriate materials to complete tasks including:

- Identify specific characters in a story
- Identify (via picture and written text) the narrator or speakers feelings
- Identify examples and anecdotes that relate to key individuals, events, or ideas in a text
- Determine the beginning and end of an action or event using informational text (add one egg and cook)
- Identify examples which represent parts of speech
- Identify the different ending punctuation marks in sentences
- Identify similar events across texts

Page 27 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 6 and *will need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 6 will use adapted age appropriate materials to complete tasks including:

- Identify what a character is in a story
- Identify words in a story or written text
- Identify examples which represent key ideas in the text (ex: point to the egg)
- Identify sequential order words (ex. First, second, third)
- Identify the symbolic representation to the written or spoken word
- Identify a capital letter at the start of a sentence or proper noun. (David)
- Identify a fact (ex. Ball is round)



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 7 and are academically *well prepared to engage successfully* in further studies in this content area.

A student performing at Grade 7 will use adapted age appropriate materials to complete tasks including:

- Describe the characters, setting, and theme
- Determine what words an author uses to contrast characters in a text
- Determine how two or more events in a text are related (cause and effect)
- Write a narrative about persona or imagined experience or events from beginning to end
- Combine two simple sentences using common conjunctions to produce compound sentences

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 7 and are academically prepared to engage successfully in further studies in this content area.

A student performing at Grade 7 will use adapted age appropriate materials to complete tasks including:

- Compare how two or more characters relate to each other
- Determine whether a text is a story, drama, or poem
- Determine two or more central ideas in a text
- Use words or phrases to describe characters or events
- Produce simple sentences using capitalization and ending punctuation

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 7 and *will likely need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 7 will use adapted age appropriate materials to complete tasks including:

- Identify explicit character traits in a story
- Identify the difference between a story and a poem
- Identify one explicit statement (ex: Animals eat plants to live)
- Use words to describe one or more characters
- Can produce simple sentences

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 7 and *will need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 7 will use adapted age appropriate materials to complete tasks including:

Page 29 of 81 August 12, 2013



- Identify specific characters and setting in a story
- Identify rhyme and repetition of sounds in a text
- Identify the central idea of the text (ex. The brown bear)
- Use words to signal event order
- Identify which picture represents the correct sentence (ex. The ball is round)



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 8 and are academically *well prepared to engage successfully* in further studies in this content area.

A student performing at Grade 8 will use adapted age appropriate materials to complete tasks including:

- Use supporting details to back up a statement (inference, theme, cause and effect relationship)
- Use word analysis and story structure to create meaning and evidence throughout various types of media
- Compare multiple text on the same topic to identify conflicting evidence
- Distinguish between fact and opinion and provide evidence to support

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 8 and are academically prepared to engage successfully in further studies in this content area.

A student performing at Grade 8 will use adapted age appropriate materials to complete tasks including:

- Summarize theme using supporting details
- Determine the meaning of informational words using context clues
- Determine patterns, events, or characters within the text
- Compare fact and opinion

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 8 and *will likely need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 8 will use adapted age appropriate materials to complete tasks including:

- Determine the central ideas and theme of text
- Determine the authors point of view
- Describe a pattern of a text
- Given a statement determine if it is a fact or opinion

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 8 and *will need academic support to engage successfully* in further studies in this content area.

A student performing at Grade 8 will use adapted age appropriate materials to complete tasks including:

- Identify a detail of the text
- Identify the topic of the story

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 31 of 81 August 12, 2013



- Identify text similarities
- Identify a fact and provide evidence to support facts

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 10 and are academically *well prepared to engage successfully* in further studies in this content area.

- Determine which quote best demonstrates the meaning of the text or an inference drawn from a text.
- Compare and contrast the experience of characters with personal experience
- Determine which word in an array of content related words is missing from a sentence
- Determine the meaning of a word with multiple meanings in a text
- Correctly use commas in a sentence or letter
- Spell high frequency words correctly and use phonetic spelling for unknown words
- Correctly use capital letters for proper nouns in sentences
- Recognize that the story contains an altered sequence by identifying the beginning, middle, or end

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and are academically prepared to engage successfully in further studies in this content area.

A student performing at Grade 10 will use adapted age appropriate materials to complete tasks including:

- Tell theme or central idea of a story
- Retell a story in proper sequence
- Answer inferential questions based on a text
- Identify a word or sentence that tells an author's point of view
- Support an answer using details from the story
- Use correct punctuation at the end of a sentence
- Use capitalization for beginning of sentences
- Determine fact/opinion
- Spell high frequency words correctly

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and *will likely need academic support to engage successfully* in further studies in this content area.

- Answer literal questions based on a given text
- Identify beginning, middle, and end in a story
- Identify the correct high frequency word when presented with an array of high frequency words
- Correctly use a period or question mark at the end of a sentence
- Identify a fact from the passage

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 32 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and *will need academic support to engage successfully* in further studies in this content area.

- Identify a character or an event from a story
- Identify a graphic that displays a scene from a story
- Recognize that a period goes at the end of a sentence
- Identify beginning letter or sounds from high frequency words



Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* in Grade 10 and are academically *well prepared to engage successfully* in further studies in this content area.

- Determine which quote best demonstrates the meaning of the text or an inference drawn from a text.
- Compare and contrast the experience of characters with personal experience
- Determine which word in an array of content related words is missing from a sentence
- Determine the meaning of a word with multiple meanings in a text
- Correctly use commas in a sentence or letter
- Spell high frequency words correctly and use phonetic spelling for unknown words
- Correctly use capital letters for proper nouns in sentences
- Recognize that the story contains an altered sequence by identifying the beginning, middle, or end

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and are academically prepared to engage successfully in further studies in this content area.

A student performing at Grade 10 will use adapted age appropriate materials to complete tasks including:

- Tell theme or central idea of a story
- Retell a story in proper sequence
- Answer inferential questions based on a text
- Identify a word or sentence that tells an author's point of view
- Support an answer using details from the story
- Use correct punctuation at the end of a sentence
- Use capitalization for beginning of sentences
- Determine fact/opinion
- Spell high frequency words correctly

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and *will likely need academic support to engage successfully* in further studies in this content area.

- Answer literal questions based on a given text
- Identify beginning, middle, and end in a story
- Identify the correct high frequency word when presented with an array of high frequency words
- Correctly use a period or question mark at the end of a sentence
- Identify a fact from the passage

Page 34 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *English Language Arts Common Core State Standards (CCSS)* at Grade 10 and *will need academic support to engage successfully* in further studies in this content area.

- Identify a character or an event from a story
- Identify a graphic that displays a scene from a story
- Recognize that a period goes at the end of a sentence
- Identify beginning letter or sounds from high frequency words



Mathematics

Math Grade 3

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 3 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Partition objects into equal halves and match to a fractional term
- Recognize attributes of a rhombus and other quadrilaterals
- Solve problems with length using appropriate vocabulary
- Label a line graph with title and axes
- Identify lengths of objects to nearest inch using a standard measurement tool
- Compose and decompose numbers on both sides of equal sign (e.g. 22 is the same as two tens and two ones)
- Use part-part-whole relationships to compose and decompose numbers 0-30
- Use manipulatives to solve real life problems using repeated additions and equal shares

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 3 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify a whole or half of an object or shape
- Categorize shapes by number of sides
- Compare lengths of two objects using language (e.g. longer or shorter)
- Use a line plot and to answer basic questions (e.g. more, less, equal)
- Add/subtract using symbols up to 30 without regrouping
- Use manipulatives to build models to solve real life problems involving equal groups
- Compare numbers 0-30 using number line (e.g. greater than, less than)

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 3 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify whole objects
- Identify basic shapes
- Sort objects by length (e.g. longer, shorter)

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 36 of 81 August 12, 2013


- Given a graph, match appropriate data
- Combine and take away from sets to tell how many
- Identify numbers on a number line up to 30

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 3 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Match common shapes
- Match non-standard measurement objects to given stimulus
- Point to the graph upon request
- Match with 1-1 correspondence (object to object)
- Match corresponding numbers to a given number line (0-5)
- Given a model, create two equal sets
- Track numbers on a number line



Math Grade 4

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 4 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Write a number sentence when given symbolic representation of a times or divide problem
- Use repeating shape patterns to make predictions
- Given numbers 1-50, identify the place value of each digit
- Use a numberline to identify the half between each number
- Identify the shape given specific attributes
- Solve problems using appropriate vocabulary to describe difference in weight (e.g. more, less, same)

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 4 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Solve addition and subtraction problems when change is unknown (e.g. 8 + _ = 12)
- Identify correct number sentence when given a symbolic representation of multiplication or division
- Extend repeating pattern using shapes
- Illustrate whole numbers to 50 by composing and decomposing numbers
- Identify whole, half and fourth using concrete models and using symbolic representation
- Tell time to nearest hour
- Compare two objects using mass and weight (ounces, lbs)

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 4 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Using manipulatives, solve addition and subtraction problems to find answer
- Illustrate multiplication and division by making equal sized groups using models
- Complete A B pattern using shapes
- Using numberline or hundred chart, compare 2 numbers < > or =
- Identify whole and half using concrete models
- Identify angles in each shape
- Compare weights of objects using vocabulary (lighter or heavier)

Page 38 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 4 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Count sets to show how many
- Create equal groups by using 1-1 correspondence
- Match shapes to a given pattern
- Locate numbers on a hundred chart or number line
- Match whole, half and quarter to given representations
- Identify which shape has an angle
- Identify parts of a clock
- Identify tools used to measure weight of object



Math Grade 5

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 5 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Illustrate and solve a number problem based on a real world situation
- Create shape and numerical patterns
- Manipulate whole numbers in groups of 1s and 10s by composing and decomposing
- Solve addition and subtraction problems when initial is unknown
- Add fractions with like denominators to make a whole (halves, thirds, fourths)
- Compare the weight and length of an object using two different units (standard and nonstandard)
- Identify more, less and same on graphs

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math Grade 5 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Solve a number problem based on a real world situation using addition and subtraction
- Demonstrate the concept of counting by 2s, 5s and 10s with numbers 0-100
- Correctly order counting numbers 0-100
- Solve single and multi-digit addition and subtraction equations with no regrouping
- Identify whole, half and fourth using concrete models
- Tell time to the nearest five minutes
- Display data on a picture of bar graph given two pieces of data
- Sort geometric figures based on common attributes

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 5 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify the next shape or number in a given pattern
- Complete a pattern using manipulatives to count by 10s
- Correctly order numbers 0-50
- Solve single digit addition and subtraction equations with manipulatives
- Identify whole, half and fourth using concrete models
- Tell time to the nearest hour and half-hour

Page 40 of 81 August 12, 2013



- Answer basic questions using a picture graph focusing on more, less, same
- Recognize basic shapes with common attributes

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math Grade 5 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Match concrete objects to a pre-made pattern
- Correctly match numbers to each other (0-20)
- Solve single digit addition equations using manipulatives or a number line
- Create a whole object when given parts (halves, fourths and thirds)
- Identify most and least on a graph
- Match basic shapes with common attributes



Math Grade 6

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 6th Grade Math and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Create ratios to represent relationships between 2 quantities
- Solve addition of fractions with like denominators to make a whole number
- Solve multiplication problems using numbers from 0-10
- Justify the answer for expressions
- Determine the area of rectangular figures using rows and provided columns
- Summarize and interpret data from a chart or a graph

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at 6th Grade Math and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Compare part-part and part-whole relationship
- Compare unit fractions
- Add fractions with like denominators
- Evaluate expressions for the variable using addition and subtraction
- Determine the perimeter of rectangular figures using given dimensions
- Display data in chart/graph (bar, picture, line plots)

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 6th Grade Math and *will likely need academic support to engage successfully* in further studies in this content area.

- Compare part to whole
- Compare whole rational numbers
- Choose operation needed to solve expressions
- Distinguish the difference between area and perimeter
- Conduct surveys

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 6th Grade Math and *will need academic support to engage successfully* in further studies in this content area.

• Recognize whole numbers

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 42 of 81 August 12, 2013



- Compare positive whole numbers
- Identify expressions and equations
- Identify corresponding (opposite) sides
- Select statistical questions



Math Grade 7

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 7th Grade Math and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Apply equivalent ratios to solve problems
- Use all operations to solve problems with whole numbers 0-100 and greater and justify answer
- Subtract fractions with like denominators within fraction families (1/2, 1/3, ¼, 1/5, 1/6, 1/8, 1/10) with fraction bars
- Apply the properties of operations and equality to solve problems for unknown quantities
- Solve real life mathematical problems to find area
- Investigate chance process and develop, use, and evaluate probability models
- Draw informal comparative inferences about two populations

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at 7th Grade Math and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Model equivalent ratios
- Use all operations to solve problems with whole numbers 0-100
- Subtract fractions with like denominators using fraction families (1/8, 1/10) with fraction bars
- Use addition/multiplication properties to identify and illustrate equivalent expressions
- Use multiplication to solve area of rectangles
- Use survey data to interpret and compare data from two graphs
- Determine the probability of an event being possible or impossible

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 7th Grade Math and *will likely need academic support to engage successfully* in further studies in this content area.

- Identify equivalent ratios
- Compute using 1 digit and 2 digit whole numbers
- Subtract fractions with like denominators using fraction families (1/5, 1/6) with fraction bars
- Define properties (associative and commutative)
- Use area formula (L x W = A)
- Identify representative random sample
- Define probability

Page 44 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 7th Grade Math and *will need academic support to engage successfully* in further studies in this content area.

- Create ratios to represent relationships between 2 quantities
- Add, subtract, multiply, divide whole numbers 0-10
- Subtract fractions with like denominators using fraction families (1/2, 1/3, ¼) using fraction bars
- Demonstrate that the sum of zero and a number stays the same value
- Using knowledge of rows and columns, identify length and width of a rectangle
- Differentiate between a population and sample
- Define an event



Math Grade 8

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 8th Grade Math and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Demonstrate the connections between proportional relationships and lines plotted
- Analyze and solve linear equations using whole numbers
- Use physical models with various orientations to find congruency (proximity, positions, directions, turns)
- Solve real world math problems involving volume of rectangular prisms
- Make predictions using trends in existing data from scatter plots

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at 8th Grade Math and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Find and graph equivalent ratios in 1st quadrant
- Use equations to solve problems involving whole numbers all operations when a part is unknown
- Determine the congruence of polygons with given attributes
- Measure volumes of right rectangular figures by counting unit cubes
- Analyze patterns in scatter plots to determine trends as positive, negative, or no association

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 8th Grade Math and *will likely need academic support to engage successfully* in further studies in this content area.

- Graph points from a function table in 1st quadrant made from equivalent ratios
- Identify operation to find unknown part in an equation or expression
- Identify corresponding attributes of different figures
- Define volume a rectangular right prism
- Given data construct scatter plot
- Describe patterns found in a scatter plot

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in 8th Grade Math and *will need academic support to engage successfully* in further studies in this content area.

- Define unit rate (cost per unit)
- Identify 4 quadrants of coordinate plane
- Identify parts of equation

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 46 of 81 August 12, 2013



- Identify attributes of figures (faces, sides, angles)
- Identify right rectangular prism
- Define attributes of scatter plot



Math Grade 10

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify, order, add, and subtract decimals to the hundredths place to compare values or set up or solve equations
- Use inequality symbols to compare quantities or make inequalities true by replacing unknown variables with non-negative (e.g., 0, 1, 2, 3) integers
- Identify or interpret the unit rate (e.g., speed = mph) from a graph
- Use algebraic concepts to:
 - o Identify equivalent expressions by combining like terms
 - Evaluate expressions by substituting numbers for variables
 - Set up or solve equations/inequalities using addition or subtraction in algebraic form or real life situations (e.g., word problems)

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math 1 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify, order, add, or subtract decimals to compare values to the hundredths
- Use inequality terms to compare quantities (e.g., less than, smaller than)
- Identify positive integers that would make an inequality true (e.g., _____ is greater than 7)
- Read a graph and identify quantities or units of measure
- Use algebraic concepts to:
 - o Identify expressions by substituting numbers for variables
 - Solve one-step addition or subtraction equations with decimals or inequalities involving whole numbers for one unknown involving whole numbers for one unknown (e.g., 3.5 + __ = 5.5; 3 + __ is bigger than 5)

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and *will likely need academic support to engage successfully* in further studies in this content area.

- Identify, order, or compare decimals to tenths
- Determine which number is bigger and smaller
- Identify types of graphs (e.g., pie, bar) or subject of graph
- Use algebraic concepts to:
 - Solve one step addition equations without variables
 - Use variable to represent numbers (e.g., Let X = apples, there are 5 apples, what is X?)

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 48 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and *will need academic support to engage successfully* in further studies in this content area.

- Identify decimals through tenths place
- Determine which number is bigger or smaller
- Identify a graphic representation of data



Math Grade 11

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify, order, add, and subtract decimals to the hundredths place to compare values or set up or solve equations
- Use inequality symbols to compare quantities or make inequalities true by replacing unknown variables with non-negative (e.g., 0, 1, 2, 3) integers
- Identify or interpret the unit rate (e.g., speed = mph) from a graph
- Use algebraic concepts to:
 - o Identify equivalent expressions by combining like terms
 - Evaluate expressions by substituting numbers for variables
 - Set up or solve equations/inequalities using addition or subtraction in algebraic form or real life situations (e.g., word problems)

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* at Math 1 and are academically prepared to engage successfully in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify, order, add, or subtract decimals to compare values to the hundredths
- Use inequality terms to compare quantities (e.g., less than, smaller than)
- Identify positive integers that would make an inequality true (e.g., _____ is greater than 7)
- Read a graph and identify quantities or units of measure
- Use algebraic concepts to:
 - o Identify expressions by substituting numbers for variables
 - Solve one-step addition or subtraction equations with decimals or inequalities involving whole numbers for one unknown involving whole numbers for one unknown (e.g., 3.5 + __ = 5.5; 3 + __ is bigger than 5)

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and *will likely need academic support to engage successfully* in further studies in this content area.

- Identify, order, or compare decimals to tenths
- Determine which number is bigger and smaller
- Identify types of graphs (e.g., pie, bar) or subject of graph
- Use algebraic concepts to:

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 50 of 81 August 12, 2013



- o Solve one step addition equations without variables
- Use variable to represent numbers (e.g., Let X = apples, there are 5 apples, what is X?)

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *Mathematics Common Core State Standards (CCSS)* in Math 1 and *will need academic support to engage successfully* in further studies in this content area.

- Identify decimals through tenths place
- Determine which number is bigger or smaller
- Identify a graphic representation of data



Science

Science Grade 5

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at Grade 5 and are academically *well prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Predict and identify conditions that effect motion (e.g. ramp increases speed; weight reduces speed)
- Identify, compare and classify physical or chemical changes
- Classify changes in matter as physical (reversible) or chemical (irreversible)
- Describe elements of different types of weather
- Given internal/external body parts, explain the functions
- Describe how the environment/ecosystem supports plans and animals within the ecosystem

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *North Carolina Science Essential Standards* at Grade 5 and are academically *prepared to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Identify objects that would make it easier or harder to push or pull other objects under certain conditions
- Recognize the causes that affect speed of objects under certain conditions (e.g. ramps, wheels, weightforce)
- Identify and classify physical or chemical changes in matter
- Recognize reversible/irreversible changes of matter (e.g. baking- irreversible, ice- reversible)
- Distinguish between examples of different types of weather
- Given examples of severe weather, choose the appropriate location/shelter
- Relate body parts to functions (e.g. mouth- eat, nose- smell, ears- hear, eyes- see)
- Identify the different ecosystems and the animals and plants within these systems

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at Grade 5 and *will likely need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

Page 52 of 81 August 12, 2013



- Sort objects that can be pushed or pulled
- Identify objectives within pictures that are fast or slow under certain conditions (e.g. ramps, wheels, weight)
- Sort physical or chemical changes in matter
- Identify examples of different types of weather (with pictures)
- Match weather to functional needs (e.g. clothing, shelter, safety)
- Identify parts of the body, including internal organs
- Match body parts to essential functions (e.g. eyes- see, ears- hear, mouth- eat, nose- smell)
- Sort or match animals/plants to the correct ecosystem

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at Grade 5 and *will need academic support to engage successfully* in further studies in this content area.

Students will consistently demonstrate the ability to:

- Demonstrate pushing and pulling using an object
- Participate in an activity that shows a chemical and physical change (e.g. use a switch to work a blender)
- Recognize a picture/symbol of types of weather
- Match appropriate clothing needs to weather with pictures and objects
- Identify basic body parts using his/her body Sort living/non-living objects or pictures



Science Grade 8

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *well prepared to engage successfully* in further studies in this content area.

- Compare and contrast energy sources and the appropriate uses of energy
- Determine remainder weight needed for parts to be whole.
- Explain why monitoring the hydrosphere and stewardship of water impacts human health
- Convey how to eliminate and treat illness
- Relate interconnectedness between living things and the environment
- Organize and sequence a complex food web

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *prepared to engage successfully* in further studies in this content area.

- Determine the effect of energy use (electricity turns on a light, fire burns wood)
- Compare an object's weight to its parts and determine that they are equal
- Link bodies of water to the existence of life dependent upon water (human life is effected by water conservation and pollution)
- Describe the components and their roles in a simple food chain (consumer, producer, decomposer)
- Convey how to prevent germs from causing illness and infection

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will likely need academic support to engage successfully* in further studies in this content area.

- Recognize that energy produces an effect
- Recognize size and shape does not determine weight (whiffle ball vs. grapefruit)
- Distinguish between saltwater, freshwater, and polluted water
- Establish an illness/infection can be caused by a germ
- Determine which environmental factors are required to sustain human life (air, food, water)

Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will need academic support to engage successfully* in further studies in this content area.

- Identify basic form of energy (sun, lamp, fire)
- Demonstrate that an object has weight
- Identify various bodies of water(river, ocean, lake, stream)
- Identify type of illness/infection
- Identify living vs. non-living in an environment

Page 54 of 81 August 12, 2013



Page 55 of 81 August 12, 2013



Science Grade 10 (Biology)

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *well prepared to engage successfully* in further studies in this content area.

- Identify raw materials needed for photosynthesis (i.e., water, sunlight, carbon dioxide)
- Understand basic anatomy and know functions of 7 major human body parts (i.e., skin, heart, brain, lungs, stomach, eyes, ears)
- Differentiate between unicellular and multi-cellular organisms
- Provide examples of fruits, vegetables, and meats that people eat
- Describe the role of plants and animals in the flow of energy through the environment
- Analyze or create a simple food chain or food web
- Recognize ways in which living things compete with each other to get resources
- Give examples of how human activities have impacted the environment
- Suggest ways to preserve natural resources

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *prepared to engage successfully* in further studies in this content area.

- Recognize that plants make food using the process of photosynthesis
- Understand basic human anatomy and know the functions of 5 major human body parts (i.e., skin, brain, heart, lungs, stomach, eyes, ears)
- Identify that the cell is the basic unit of life and most living things are made of cells
- Infer that fruits, vegetables, and meats as types of food that provide energy for people
- Review a simple food chain and identify the role of plants and animals in the flow of energy through the environment
- Understand that living things compete with each other to get resources
- Indicate how human activities impact the environment

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will likely need academic support to engage successfully* in further studies in this content area.

- Know that plants make their own food
- Understand basic human anatomy and know the functions of 3 major human body parts (i.e., skin, brain, heart, lungs, stomach, eyes, ears)
- Identify that living things are made up of cells
- Indicate that people require food for energy
- Recognize a simple food chain
- Relate examples of natural resources and pollution

Page 56 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will need academic support to engage successfully* in further studies in this content area.

- Know that plants are living organisms
- Point out major internal and external body parts without giving functions (i.e., skin, brain, heart, lungs, stomach, eyes, ears)
- Recognize that cells are alive
- Indicate that people need food
- Understand that some living things eat other living things to survive
- Define or provide an example of the term "natural resource"



Science Grade 11 (Life Science)

Level 4: Students performing at this level have a **superior command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *well prepared to engage successfully* in further studies in this content area.

- Identify, report, and follow proper procedure to respond to common disasters and accidents
- Give examples of simple and serious injuries
- Provide a relevant personal medical history
- Apply and recognize the importance of personal hygiene, proper nutrition, and exercise
- Plan, shop for, and prepare a nutritious meal
- Demonstrate food safety and how to properly prepare and/or store food

Level 3: Students performing at this level have a **solid command** of the knowledge and skills contained in Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and are academically *prepared to engage successfully* in further studies in this content area.

- Identify, report, and/or respond to common disasters and accidents
- Recognize types of injuries and proper procedures for treatment
- Provide relevant personal information
- Understand and apply the importance of personal hygiene, proper nutrition, and exercise
- Plan and prepare a nutritious meal
- Demonstrate food safety methods and how to properly prepare and store food

Level 2: Students performing at this level have a **partial command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will likely need academic support to engage successfully* in further studies in this content area.

- Know how to respond to common disasters and accidents
- Distinguish between simple and serious injuries
- Provide limited personal and medical information (e.g., name, but not address; first name, but not last name)
- Recognize the importance of personal hygiene, proper nutrition, or exercise
- Plan a meal
- Identify methods of properly preparing or storing food

Page 58 of 81 August 12, 2013



Level 1: Students performing at this level have a **limited command** of the knowledge and skills contained in the Extended Content Standards of the *North Carolina Science Essential Standards* at their grade level and *will need academic support to engage successfully* in further studies in this content area.

- Understand and recognize common disaster and accident procedures
- Identify between simple and serious injuries
- Provide minimum personal information (e.g., name)
- Define or provide an example of personal hygiene
- Recognize food
- Know that food needs to be stored properly



Appendix B: Graphical Display of Standard Setting Results by **Subject and Grade**

English Language Arts

Grade 3



Grade 4



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Page 60 of 81 August 12, 2013



Grade 5



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Grade

Grade 7

 0
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30

 Level 4
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 61 of 81 August 12, 2013



Grade 8



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Grade 10/English II

Level 4 . **:**.**!!**. Level 3 11. Level 2 ž **İ** : : . 6 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 0 1 2 3 4 5 7

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



Mathematics

Grade 3



Grade 4

Level 2 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Grade 5









Grade



Grade





NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 64 of 81 August 12, 2013



Grade 10/Algebra I



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



Science

Grade 5



Grade 8

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30





Grade 10/Biology



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



Mixed Subjects

Grade 11





Appendix C: Impact Tables by Subject Area

The tables in this appendix provide the estimated impact of any cut score. Specifically, the values in each table indicate what percent of students (at each grade level) scored at or above each possible score point based on the results of the 2012-2013 administration of the NCEXTEND1 tests.

SCORE	3	4	5	6	7	8	10/English II
0	100%	100%	100%	100%	100%	100%	100%
1	98%	99%	98%	99%	98%	99%	98%
2	98%	99%	98%	99%	98%	99%	98%
3	97%	98%	98%	98%	97%	98%	98%
4	97%	98%	98%	98%	97%	98%	98%
5	97%	98%	97%	98%	97%	98%	98%
6	97%	98%	96%	98%	96%	97%	98%
7	96%	97%	96%	97%	96%	97%	97%
8	95%	97%	95%	97%	96%	97%	97%
9	95%	96%	95%	97%	96%	96%	96%
10	94%	96%	94%	96%	95%	95%	95%
11	93%	94%	93%	95%	94%	94%	93%
12	92%	93%	92%	94%	93%	92%	92%
13	91%	91%	90%	92%	91%	91%	90%
14	88%	88%	86%	89%	87%	88%	87%
15	84%	84%	82%	85%	82%	83%	82%
16	78%	80%	78%	80%	77%	78%	75%
17	74%	73%	72%	75%	72%	70%	69%
18	69%	68%	66%	69%	67%	65%	61%
19	64%	64%	60%	64%	62%	59%	55%
20	60%	60%	54%	58%	57%	53%	49%
21	56%	54%	48%	52%	53%	48%	44%
22	52%	48%	44%	47%	48%	43%	39%
23	49%	42%	41%	40%	43%	37%	35%
24	46%	36%	36%	34%	38%	31%	30%
25	43%	30%	29%	29%	34%	25%	26%
26	40%	26%	24%	23%	29%	18%	22%
27	34%	20%	19%	16%	22%	13%	16%
28	29%	12%	13%	11%	16%	9%	11%
29	22%	7%	8%	5%	10%	3%	7%

English Language Arts

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 69 of 81 August 12, 2013



30	16%	2%	4%	1%	4%	1%	4%
----	-----	----	----	----	----	----	----

Mathematics

SCORE	3	4	5	6	7	8	10/Algebra
0	100%	100%	100%	100%	100%	100%	100%
1	98%	99%	98%	99%	98%	99%	98%
2	98%	99%	98%	99%	98%	99%	98%
3	98%	98%	97%	98%	97%	98%	98%
4	97%	98%	97%	98%	97%	98%	97%
5	97%	97%	97%	98%	97%	98%	97%
6	97%	97%	96%	97%	97%	97%	96%
7	96%	97%	96%	97%	97%	97%	96%
8	95%	97%	96%	97%	96%	96%	96%
9	95%	97%	95%	96%	95%	96%	96%
10	94%	96%	95%	96%	95%	95%	95%
11	93%	95%	94%	95%	94%	94%	94%
12	91%	93%	92%	94%	93%	92%	92%
13	90%	92%	90%	91%	91%	89%	88%
14	86%	88%	85%	87%	88%	83%	85%
15	81%	83%	79%	82%	82%	78%	77%
16	75%	77%	72%	78%	76%	69%	68%
17	68%	69%	65%	70%	67%	61%	60%
18	60%	59%	58%	62%	60%	50%	51%
19	53%	52%	50%	53%	51%	40%	43%
20	46%	44%	43%	47%	44%	32%	35%
21	39%	38%	35%	40%	36%	26%	27%
22	33%	33%	28%	32%	29%	19%	21%
23	27%	27%	24%	25%	22%	14%	15%
24	22%	22%	19%	19%	17%	10%	11%
25	17%	17%	15%	14%	14%	7%	9%
26	13%	13%	10%	9%	10%	4%	6%
27	7%	11%	7%	5%	6%	2%	4%
28	4%	8%	4%	3%	4%	1%	2%
29	2%	5%	2%	1%	2%	1%	2%
30	1%	2%	1%	0%	1%	0%	1%

Page 70 of 81 August 12, 2013



Science

SCORE	5	8	10/ Biology
0	100%	100%	100%
1	99%	98%	99%
2	98%	98%	98%
3	98%	98%	98%
4	97%	98%	98%
5	97%	97%	98%
6	97%	97%	98%
7	96%	97%	97%
8	96%	97%	97%
9	96%	97%	96%
10	96%	96%	96%
11	95%	96%	95%
12	94%	95%	94%
13	93%	94%	91%
14	91%	92%	89%
15	86%	89%	86%
16	82%	86%	80%
17	75%	80%	74%
18	71%	75%	68%
19	66%	70%	62%
20	60%	64%	56%
21	54%	58%	48%
22	49%	54%	40%
23	42%	50%	33%
24	37%	45%	27%
25	30%	39%	20%
26	25%	34%	16%
27	18%	28%	11%
28	12%	20%	8%
29	6%	12%	5%
30	2%	5%	2%



SCORE	11	
0	100%	Mixed Subjects
1	98%	
2	98%	
3	97%	
4	97%	
5	97%	
6	96%	
7	96%	
8	96%	
9	96%	
10	95%	
11	94%	
12	93%	
13	91%	
14	89%	
15	85%	
16	79%	
17	73%	
18	66%	
19	60%	
20	54%	
21	46%	
22	41%	
23	35%	
24	29%	
25	24%	
26	20%	
27	15%	
28	9%	
29	5%	
30	2%	



Appendix D: Explanation of Guessing Adjustment

When test designs result in high probabilities of students meeting cut score thresholds by randomly guessing, it is reasonable to consider adjustments for guessing in the standard setting process (Cizek, 2012). The design of the NCEXTEND1 Assessments makes achieving high scores by guessing very likely (see Figure D1). For example, a student has an approximately 26% chance of scoring 20 or higher if the student randomly guessed on all questions. The effect of guessing is even more pronounced at lower score points: a student has an approximately 80% chance of scoring 10 or higher when guessing.





The two-tiered scoring process for the EXTEND1 Assessments makes identifying a clear-cut and defensible guessing adjustment difficult. However, probabilistic theory can be applied to the scoring design, which can inform the decisions as to how to make cut score adjustments. One important probabilistic feature of the scoring design is that when a student guesses on an item, his/her expected score for that item is 1 (see Figure D2.)

Another important point of consideration is the instructions that the panelists received during the standard setting process. For the NCEXTEND1 standard setting study, panelists were told not to consider guessing in their ratings. In other words, the cut scores recommended by standard setting panelists reflect the scores of

Page 73 of 81 August 12, 2013



borderline examinees assuming the only reasons they scored correctly on items was that they were more likely than not to have known the answers. These two factors allow us to derive a reasonable system for adjusting for guessing.



Expected score on an item (random guessing) = $2^{*}(1_{3}) + 1^{*}(1_{3}) + 0^{*}(1_{3}) = 1$

Figure D2. Visual explanation of the probabilistic outcomes for a given item if a student were to guess randomly

Consider a hypothetical cut score of 25. Under the idealized assumptions used in the standard setting study (where students only get items correct when they know the answers), there are three different ways a student could score a 25 (see Scenarios A-C, Table D1). A student could receive a score of 25 when not knowing the answer to either 0, 1, or 2 items. In the real world, a student would be unlikely to have a zero probability of getting the items correct that he/she did not know. Instead, the student would have a chance of getting an item correct due to guessing. Figure D1 shows that the average score a student would get on an item by guessing is 1. Assuming that each of the response patterns shown in Table D1 are equally likely, the average number of items that a student scoring 25 (based on knowledge alone) will not know the answer to, and thus would likely guess on is 1 (i.e., 0+1+2 divided by 3). Therefore, having established that the expected score on an item where guessing occurs is one, a reasonable adjustment-for-guessing for a cut score of 25 would be to increase the cut score by 1 point (i.e., an average of one item guessed on with the student receiving an average score of 26.

NCDPI NCEXTEND1 Standard Setting Report Alpine Testing Solutions, Inc. and NCDPI Proprietary and Confidential

Page 74 of 81 August 12, 2013



Scenario	Number of items by Score Point				
Scenario	2	1	0		
А	10	5	0		
В	11	3	1		
С	12	1	2		

Table D1. Response patterns in which a student would score 25 points

Adjustments for cut scores at other points can be obtained in the same manner. For example, consider a panelrecommended cut score of 16. There are eight different ways a student could achieve a score of 16 (see scenarios A-H, Table D2). Again, assuming that each of the response patterns are equally likely, the average number of items that a student scoring 16 (based on knowledge alone) will not know the answer to, and thus would likely guess on is 4 (i.e., 0+1+2+3+4+5+6+7 divided by 8, rounded to the nearest whole number). Therefore a reasonable adjustment-for-guessing with a cut score of 16 would be to increase the cut score by 4 points (i.e., an average of 4 item guessed on with the student receiving an average score of one for each of these items) for an adjusted cut score of 20.

Scenario	Number of items by Score Point				
Scenario	2	1	0		
А	1	14	0		
В	2	12	1		
С	3	10	2		
D	4	8	3		
E	5	6	4		
F	6	4	5		
G	7	2	6		
Н	8	0	7		

This adjustment can be calculated in a similar manner for any score on the 0-30 range of the Extend1 assessments. Adjustments for lower scores will be larger than those for higher scores, using this methodology. See Table D3 for the full list of guessing adjustments.

Page 75 of 81 August 12, 2013



0 15 1 15 2 16 3 16 4 16 5 16 6 17 7 17 8 17 9 17 10 18 11 18 12 18 13 18 14 19 15 19 16 20 17 20 18 21 19 22 20 23 21 23 22 24 23 25 24 26 25 26 26 27 27 28 28 29 29 29		
11521631641651661771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929	Recommended Cut Score	Guessing Adjusted Cut Score
21631641651661771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
31641651661771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
41651661771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
51661771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
61771781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
71781791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
81791710181118121813181419151916201720182119222023212322242325242625262627272828292929		
91710181118121813181419151916201720182119222023212322242325242625262627272828292929		17
101811181218131814191519162017201821192220232123212322242325242625262627272828292929	8	17
1118121813181419151916201720182119222023212322242325242625262627272828292929	9	17
121813181419151916201720182119222023212322242325242625262627272828292929	10	18
13181419151916201720182119222023212322242325242625262627272828292929	11	18
1419151916201720182119222023212322242325242625262627272828292929	12	18
151916201720182119222023212322242325242625262627272828292929	13	18
16201720182119222023212322242325242625262627272828292929	14	19
1720182119222023212322242325242625262627272828292929	15	19
182119222023212322242325242625262627272828292929	16	20
19222023212322242325242625262627272828292929	17	20
2023212322242325242625262627272828292929	18	21
212322242325242625262627272828292929	19	22
22242325242625262627272828292929	20	23
2325242625262627272828292929	21	23
242625262627272828292929	22	24
25262627272828292929	23	25
2627272828292929	24	26
2627272828292929	25	26
272828292929		
28 29 29 29		
29 29		
50 50	30	30

Table D3. Guessing Adjustment by Score Point



Appendix E: Evaluation Comments

Elementary Panel

- Larger paper to write ALDs during group time. Better training on the differences between a barely level student and a solid level student. Some participants don't work with the target population and don't have a clear understanding of their abilities- wide range between lowest and highest functioning students. These panelists often set level expectations too high. Performance information doesn't mean the students actually knew the answers. One has to factor in lucky guesses. Language of the questions has a huge effect on student performance. Vocabulary comprehension. There should be at least one other level of the Extend I. One for non-readers and students with lower cognitive functioning. This population has too wide of a range of ability. The stimulus cards are too big and often fall outside the students' range of vision. They don't often understand to look at all the choices unless prompted verbally and or gesturally. Overall it was a great experience. Wonderful staff- friendly and helpful and fun :)
- While panelist variation/diversity is important, there were a couple of members with little experience with the NCEXTEND I test and or the Extend I population of students. This process may or may not have been more successful with a more focused group with similar experiences. Additionally, a group with relevant and recent experience teaching the extended content standards may have produced more meaningful conversation and a move specific cut score based on SOUND knowledge of curriculum. DPI and Alpine were great in both facilitating and mediating opinions.
- The sessions were very engaging and helpful. Everything stayed on schedule and our professional opinions were valued and respected! Laura and Torrey did an amazing job of keeping us all on task and focused. In the elementary room I'm concerned some people did not have enough experience with the Extend I or teaching the 1% population so their info became outliers and their attitudes were not as positive. Laura was AWESOME at dealing with all of the crazy emotions and uproars!
- First, Laura did an excellent job sticking to the agenda/focus for the session! Torrey was a great help and everyone from Alpine/NCDPI was fantastic! The elem. group had some strong personalities and opinions which often made for a tense environment. Laura handled it beautifully and diplomatically. I think this experience has been enlightening and beneficial! I am concerned that there are some panel members with LITTLE to NO EXPERIENCE in Ext 1 who were in the elem. group (I cannot speak for the other groups)- but it concerns me that some specific people with a lack of experience or knowledge often seemed to be the outliers- or temperamental to the group! Thank you for the opportunity to participate in this process. I am happy to see the amount of time and information that is taken into consideration when making administrative decisions about high stakes testing.
- Teachers, for the most part, are used to working on their own time to get a task completed. If they know the task ahead of time the ALD process might be smoother and not require 2nd day revisions.

Page 77 of 81 August 12, 2013



- This was an excellent experience. I'm glad there is a median, minimum and maximum score. Although I think some expectations are lofty. I feel the feedback given and ability to adjust will make scoring fair. Thank you for the opportunity.
- If possible, it would be helpful to have the training dates and schedule earlier than we did. I personally had many things to schedule all around each day of the trainings. All orientation and presentation pieces were very clear and well done. Thank you! Maybe show an example of a test from the get go for the few who have never administered. We even had a discrepancy in our room over the administration rules.
- I feel that panelists for the Extend I standard setting need to have more of a background working with this very specific population. Within my group, regular education teachers seemed to have some unrealistic expectations for this population.
- Wanted to know how much our input and work the last 3 days impacts possible changes in the Extend I. Felt it was a good process. One thought though- maybe it would be better to only have teachers who have taught this population. Reg ed teachers and spec ed seemed to have many differences and discrepancies.
- Screening of panelists needed to be based on the topic and with a minimum of so many years. Several panelists had not taught elementary level in many years which has changed with extended common core since then. Give more feedback on the way we could potential make changes to the Extend 1 test.
- Laura does a great job!
- I think in any group situation it is helpful to develop group norms before beginning- everyone seemed to work well but in this situation you want everyone to feel comfortable speaking up. In the room I was in there was some eye rolling and whispering when someone disagreed or challenged what was being stated.
- Everyone from Alpine testing and DPI were wonderful. Laura did an excellent job facilitating our group. I was surprised and a little concerned at the lack of background knowledge of the Extend 1 a handful of the panel had. At times, during creating ALDs these participants were usually ones with many questions and concerns. It concerns me when an elementary teacher says she does not know what I:I correspondence means. We had an ESL teacher, HS teacher, 1st grade and middle grades teacher. Got clarification from Torrey :) Also awesome!

Middle School Panel

- I enjoyed this thoroughly. Probably one of the MOST informative and productive workshops I have been involved with.
- What a powerful experience it has given me an understanding of how the tests and scores come about. Had a great group and worked very hard but the group was wonderful. I am pleased to chosen and have learned a lot from it.
- In the future it would be helpful to provide panelist with larger lined sheets of paper to record draft/final ALDs :)
- Possibly giving preliminary training about how Extend I is administered for those who have never seen it and are unaware of the accommodation/modifications allowed. I believe more emphasis should also be placed on the type of students and their disability ranges. Extend I students generally are VERY far from



their same age/grade peers. I also found it very difficult to develop ALDs based on standards that are WAY WAY too high for students with significant cognitive disabilities. The test we reviewed did not always align with ALDs too.

- Timing was off-- a little too much discussions. Perhaps next time we could be given time restraints. For example, "You have about 15 minutes to..." or "Let's discuss this for 5 minutes". Wonderful! Sara is a great facilitator: she kept us on task with a professionalism rarely seen this day and age. I loved working in groups to determine the strands and expectations for our students. I greatly appreciated being treated as a professional in my field. I felt honored being chosen to work on this task at hand.
- I really enjoyed and learned A LOT about how this process is completed. As a teacher, you are unaware of how standards are set and feel that it is a stab in the dark. This will assist me in going back home and being able to explain how intense the process and development/evaluation is!
- I would like for the group discussions between round 1 and 2 to be timed or facilitated where we stayed on task at hand. Consistent instructions on how to use standards to create an ALD. Example: Give middle school an example of a high school ALD standard of a barely 3. Thanks for the opportunity :)
- ALV- processing information- would liked to know we were doing this component so I could review information.
- More time to develop ADLs. More ability to choose content area most comfortable to develop ADLs for. More profiles of student for teachers unfamiliar with wide range of students in Extend 1 settings.
- Sara was great to work with, as were all the Alpine group! Everything was first class and enabled us to accomplish our goal. Thank you!

High School Panel

- Perhaps next time more effort could be placed in targeting EC teachers or specific teachers who work with NCExtend1 students. As a regular ed teacher, I did not always feel that I was very useful. BUT that being said, I learned a lot from simply experiencing how the process works. Thanks for the opportunity.
- Aside from going over on Wednesday, I found this program organized and efficient. I was grateful for the opportunity to see how achievement levels are determined. The presenters were engaging and effective in interpreting complex statistical processes in layman's language.
- More orientation and training for those unfamiliar with the Ext 1 population. More recruitment of Ext 1 personnel to assist in decision making and group discussion.
- Might be helpful to send invite to EC directors for counties- would potentially get more EC teachers involved for testing review.
- The most impactful problem in our group was the difference in opinion about whether standards or the level of the extend 1 students should determine the ALDs. Either standards matter and merit their use as dominant factors in writing ALDs or not. I recognize that the Extend 1 students are relatively low level, but the argument that their level should partially dictate the rigor of the ALDs ignores what the ALDs should represent as curriculum and testing guides. Our facilitator did appropriately mediate the dispute, but that schism tainted our ability to determine valid cut off scores. This matters! If a group consistently low balls student expectations, the cut offs will not dictate a rigorous and meaningful test. Either you get a test and curriculum that is watered down and essentially meaningless, OR you can

Page 79 of 81 August 12, 2013



develop a curriculum template useful to course development and testing efficacy. As teachers, we all advocate for our students, but evaluation needs to be clinical and even handed. When student first individuals get too much sway in this process, they skew it away from a reality-based paradigm and limit its effectiveness. I do not see a way to bridge that divide when one teacher wants a 30, but another wants an 18. I am sure that it all works out somehow, but I do not know where DPI lies in this debate. The fact that some of these testing low ballers have been to other DPI standards setting meetings frankly terrifies me. I felt that, as a curriculum specialist, I might have been in the wrong place. In my mind, we needed a clear indication about which perspective was more important. Did we want a test curriculum all students can pass, or a rigorous approach to education? Either standards matter or they don't. Our moderator was GREAT and PROFESSIONAL and I appreciate his efforts. Very prepared and willing to work with us. Thank you!

- Lack of knowledge of the population of NCExtend I students by several participants hindered the
 progress or accuracy of the levels. There was a lot of confusion about whether level 4 should extend
 beyond the given standards. Some groups used the exact standards as level3 then extended level 4
 beyond the id standards. Needed more time to go over the ALDs. Clarification on expectations for levels
 to standards. Need more time to vertical align with middle school. Provide examples of NC Extend I
 students so that participants are clear about population. Levels should consider standards and the
 population??? Felt a little rushed to finish both days even though plenty of time for Angoff-ALD
 confusion. Overall very informative, just needed more time and clarification. Thanks for this great
 opportunity.
- Felt high school 2nd day was too much, felt rushed and unable to really change ALDs when we disagreed completely with one of the groups. Felt some people that had no knowledge of this population hindered the process. Rating 4 hs tests 2 times in just a few hours was too much, more time needed when everyone was either upset or exhausted.
- It would be helpful to describe the various disabilities that the population of children who take the Extend I have and how the disability may affect their performance. Many of the participants in the standard setting workshop did not understand the students disabilities and test performance. The presenter did an excellent job of keeping the group under control and focused. The high school should have worked an additional day. We were rushed to complete our tasks.
- I feel there needs to be more ExI teachers involved. The ideal situation would be for reg ed content area teachers and ExI classroom teacher to be on this panel. There was also a communication breakdown between DPI and Alpine. There seemed to be a question as far as where the standards were targeted.
- Not enough people with true understanding of the Extend I population (one group had zero representation). Discrepancies between what standards mean in comparison to levels (some of the groups felt standards were barely 3 while other groups felt they were solid 4s). Cut scores needed to be based on barely levels but there was no discussion of what a barely was- facilitator stated barely 3 was a 3 when in reality they were a 2+. Did not discuss any changes to ALDs on day 2. No consensus to the charges group made never saw them until score rating. Rating scores showed some people felt level 3 and 4 were perfect score. Was told by 1 group person that it was the teachers fault if the kids didn't know at least what the standards state. Break process into 3 steps: ALLs solid level, ALDs barely levels, ratings based on ALDs barely levels. Need more time to discuss all questions rather than only looking at 1 easy and 1 hard. Biology and life science levels much higher expectations than ELA and algebra.

Page 80 of 81 August 12, 2013



Needed another 1/2 day. Every round 1 have a maximum score of 30. 3 rounds of scoring with discussion. Cannot state how confident about scores without seeing final scores.

Page 81 of 81 August 12, 2013

