### STATE BOARD OF EDUCATION

**HEARING TYPE**: X INITIAL CONSIDERATION

**DATE:** SEPTEMBER 14–15, 2006

SUBJECT: Collection of Evidence Scoring Criteria

**SERVICE UNIT:** OSPI Assessment and Research

**PRESENTER:** Lesley Klenk Ph.D., CAA Options Team

OSPI

#### **BACKGROUND:**

Engrossed Substitute Senate Bill 6475 authorized the use of a Collection of Evidence (COE) as an option for meeting standards necessary to obtain a Certificate of Academic Achievement (CAA). Prior to implementation, the bill requires that the State Board of Education approve the guidelines, protocols, and scoring criteria for the collection. In making the approval decision, the board must find that the guidelines, protocols, and scoring criteria:

- 1) Meet professionally accepted standards for a valid and reliable measure of the Grade Level Expectations and the Essential Academic Learning Requirements; and
- 2) Are comparable to or exceed the rigor of the skills and knowledge that a student must demonstrate on the Washington Assessment of Student Learning (WASL).

Attached is a summary of the proposed scoring process and the scoring criteria that OSPI intends to use when scoring the collections this spring.

The purpose of the presentation is to provide members of the board an initial overview of the scoring process and criteria. Public comments will be requested at the October meeting, after which the board will be asked to approve the guidelines, protocols, and scoring criteria.

The legislative deadline for the board's decision is December 1, 2006.

Attachments



#### SUPERINTENDENT OF PUBLIC INSTRUCTION

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To: State Board of Education Members

From: CAA Options Staff, Office of Assessment and Research, OSPI

Date: September 6, 2006

RE: COE Scoring Process and Scoring Criteria

We continue to work on the content guidelines and administrative protocols of the COE in order to make the revisions you have requested. We will be presenting the guidelines and protocols for your approval at the October Board meeting.

At the September Board meeting, we plan to present to you the scoring process and the scoring criteria of the COE so we can all continue to move towards the December 1, 2006 deadline established by the Legislature. The guidelines and the protocols are comprised of the sufficiency elements that must be included in the collection, while the scoring process is the plan used to score the collections. The scoring criteria are the descriptions of the standards used to measure the proficiency of a collection.

Attached are two documents that address the legislative request that the State Board approve the scoring process and the scoring criteria for the Collection of Evidence. The first document, "COE Scoring Plan for the State Board," describes the scoring process that includes pre-scoring, scoring, and post-scoring elements. It is a plan modeled after the WASL scoring process with the modifications necessary for classroom based evidence and holistic scoring.

The second series of documents are the content-specific scoring criteria that are used to score each student collection. The scoring criteria is holistic, meaning that the descriptions of skills are applied across the entire collection not single work samples.

CAA Options staff will be presenting the scoring process and scoring criteria in depth at the September 14<sup>th</sup>-15<sup>th</sup> State Board meeting in Olympia. If you have any questions please contact Lesley Klenk at 360-725-6330 or <a href="mailto:lklenk@ospi.wednet.edu">lklenk@ospi.wednet.edu</a>. We look forward to presenting this information to you.

# The COE Scoring Process and Scoring Criteria Office of Assessment and Research Lesley Klenk, Ph.D September 14, 2006

#### **Introduction:**

The following description is a paper designed to present the scoring process that will be used for the first operational scoring of the COE in April 2007. The scoring process was also used in the 2005-2006 COE Pilot and has been modified in a few sections in order to reflect the lessons we learned. Each content area may have some slight variation due to the demands of the content, but all three areas share the common elements that adhere to the professionally accepted standards for reliability, validity, data collection, standard setting, and student reporting issues. The paper focuses on the following sections:

#### **Pre-scoring**

- notebook submission
- scanning process
- record reconciliation
- sufficiency check for administrative protocols
- notification process to the district
- rangefinding to determine scoring materials
- training of scorers using rangefinding materials

#### **Scoring**

- sufficiency check for content guidelines
- implementation of reliability collections
- implementation of validity collections
- double scoring of all collections
- third scoring of collections with non-adjacent scores
- back reading by table supervisors
- calibration of scorers to adhere to standards

#### **Post-scoring**

- reconciliation of scores with student ID number
- capture evaluative comments from scorers to inform process
- finalize data on reliability and validity
- identify collections appropriate for use in the standard-setting process
- complete the standard-setting process
- use "cut scores" to determine which collections met standard and which ones did not meet standard
- send districts, schools, and students performance reports on their COE that includes an analysis of strengths and weaknesses

#### **Pre-Scoring**

In late March 2007, OSPI will ship student ID scan stickers to the districts. The districts will match their student files and then ship their students' COEs to a contractor site. The collections will be opened, the student ID number will be entered into a data field. Following the intake, all collections will be scanned and matched with the student ID information, the school, and the district. This scanned "copy" of the collection will allow educators and/or parents to request a copy, initiate a score appeal, or check on sufficiency components. Also, the scanned copy will protect the state from plagiarized materials and from students submitting a replicate copy of their collection in a different scoring window.

During this pre-scoring process, OSPI can follow a record reconciliation process where a "side by side" check of the names on the student collections match the names on the district registration materials. If there are discrepancies, OSPI and school districts will have time to reconcile the missing collections or add new collections with additional data.

A critical component of the pre-scoring time period is the sufficiency check. During this check, contractors, with OSPI supervision, will review each notebook and check to make sure all administrative protocols have been followed and paperwork has been signed. The collections will be reviewed for the Student Information Form and each Work Sample Form. The reviewers will also check each student, teacher, and principal signature. If any of the forms or signatures are missing, OSPI will make a courtesy call to the district, and the district will have a window of time to deliver the missing components. If the components are not provided, the collection will be returned to the district without a score. If the collection has all the required components, it will pass onto the sufficiency check for the content guidelines during the scoring phase of the assessment.

Once the set of collections has been established, a process called "blind copy" is initiated. Scoring directors select several dozen collections in a process that allows for distribution across the state. The scoring director then reviews each collection looking for different elements, such as: strengths and/or weaknesses in math or reading strands and/or writing modes; varieties of work samples that reflect traditional assignments and unusual assignments; strong collections overall; weak collections overall; mixed collections that offer the scorer challenges in scoring them accurately. Once the training collections are identified, the scoring director will develop a skeleton of annotations (descriptions of skills) that will help lead rangefinding.

Ragefinding is about developing the range of papers that fall within a given score point. During the rangefinding process, Washington state teachers will review the Grade Level Expectations, the strands and targets for reading and mathematics, and the mode-specific checklists for writing. The group will review each collection, weighing its strengths and weaknesses against the scoring criteria and the state standards in each content area. Together, as a group, the teachers critique each collection and assign it a score. The annotation for that collection is "fleshed out" and the score is entered as the final score

for that collection. It is a long and valuable process; the collection scores produced in rangefinding become the training materials for scorers.

The last step in the pre-scoring process is scorer training. Scorers from all over the state have applied and been accepted to score the COEs. They must meet the criteria of being a full-time teacher, of providing teacher leadership at the building and/or district level, and of working with high school students in the content area in which they teach. The scoring director leads the training, and rangefinding team members serve as table leaders to guide training of a group of five to seven scorers. The scorers are trained on the set of collections that the rangefinding team has agreed upon annotations and scorers. At the end of the training, scorers must "qualify" to score by scoring some additional collections independently and demonstrating the ability to score the pre-scored collections accurately. If the scorers are within a certain range they qualify to score. If they are not they have the opportunity to receive more training. If they do not qualify to score following the scoring training, they will not able to participate in scoring.

#### **Scoring**

The first step in the actual scoring of the collections is a sufficiency review of the content guidelines. It is not possible for the contractor staff to complete this part of the sufficiency check; only scorers who have been trained in the coverage of the standards, the variety and number of work samples, and the subtleties of the skills stated in the Work Documentation Form are able to discern whether the content has been covered or not. The scorers will determine if there is enough breadth and depth of the standards to warrant scoring the collection. If there is not enough material, the collection will be returned to the district accompanied by a report that states which standards were missing.

After the sufficiency review, the collections that remain are the ones that met all of the administrative protocols and content guidelines. By weeding out the collections that do not meet the requirements, scorers will now have a set of collections that can be scored fairly because they all met the same elements for submission.

During scoring, scoring directors implement a set of reliability collections and a set of validity collections to assess the accuracy of the scoring process and the scorers' ability to score accurately. Reliability collections come to the scorer once every ten collections. They are pre-scored, and the scorers' scores are matched against the scoring director's scores as well as other scorers. Since the data is entered constantly, the scoring director can determine who is in need of calibration, which is re-training. Validity collections are implemented at even junctures throughout the scoring. Scorers are tested for not only their reliability in awarding scores, but they are also evaluated on their ability to recognize the content within collections. For example, in reading, if a scorer got a validity collection that was heavy in literary analysis, the scorer would reflect that on his or her score card. It is this process that establishes the validity of the scoring. Essentially, scorers are recognizing the state standards and are scoring them reliably.

All collections are double scored. Each scorer submits a scoring sheet to the data desk. The scores are entered as well as the content standards described in the collections. Each collection will have two sets of scores. If all of the scores are right next to each other, eg: 1-2, 3-4 etc., the two scores suffice. However, if there are non-adjacent scores, eg: 1-3, 2-4, the collection will go through a third score where the non-adjacent scores are reconciled. The third scorer will be the scoring director or a table leader with extremely high reliability and validity statistics.

Throughout the scoring process, table supervisors are constantly back reading collections. By "back reading," they are checking the scoring patterns of the scorers at their table. All scores for collections are reported to the table supervisor before being entered at the data desk. This enables a table supervisor to assess if an individual scorer has a tendency to score easier or harder. The table leader can partner score with a scorer for a while until the scorer and the table supervisor feel the scoring criteria are being applied fairly to all collections.

Lastly during the scoring process is calibration. Calibration is simply re-training or reminder training. A scoring director will distribute the same collection to all of the scorers. They will score it, and then everyone will discuss the collection. The scoring director selects a collection that will help scorers see parts of collections that may not be clear at first. The calibration set also demonstrates a point—if the scorers are producing some non-adjacent scores around a certain point on the scoring criteria, the scoring director can "draw the line" for the scorers and guide them towards the correct part of the scoring guide.

#### **Post-Scoring**

After all of the collections have been scored in all three content areas, the scores awarded to each collection are reconciled with their student ID number. This process is complex; data entry staff will also enter all scorer comments regarding the different standards demonstrated in the collection. This is important; for the collections which do not meet standard, students will have a chance to augment their collection for the next scoring window. This means they will keep the work samples that met the scoring criteria while they will have to create new work samples that will meet the expectations for the other standards.

A final meeting will take place for the scoring directors and the scorers. Scorers will have an opportunity to provide evaluative feedback designed to get their comments about the scoring process. All of their comments and ideas will be recorded in order to inform future scoring sessions.

A final analysis of the data is also an objective measure of the success of the scoring. Final reliability and validity statistics will emerge as well as the number of third scores necessary to reconcile non-adjacents. All numbers will be evaluated, and OSPI staff will review the information and make modifications to the process as necessary.

In spring 2007, standard setting for the COE will take place. The process of standard setting happens only a few times in the life of a testing program, so this process will be reviewed by our CAA Options national experts and others before implementation. As of this date, the plan is to collect representative collections from the April 2007 scoring in each of the content areas. The collections will represent different elements, such as: strengths and/or weaknesses in math or reading strands and/or writing modes; varieties of work samples that reflect traditional assignments and unusual assignments; strong collections overall; weak collections overall; mixed collections that represent validity issues. The collections will be sorted from highest score to lowest score. The standard setting team will receive training in GLEs, strands and targets, and writing modes as well as sample collections from the rangefinding selections. Team members will receive training on the scoring criteria and will follow a process of scoring several collections. Using a common methodology, team members will apply a checklist of "must have" elements for meeting proficiency. As the team works through the collections, they will study the scored collections, review the relationship between the standards and their scoring patterns, and examine the transparency of the validity elements. The team will then work with the standard setting staff to establish the cut scores for proficiency. The standard setting process will happen in May 2007 and those cut scores will serve as the proficient mark for all scoring windows in the future.

Following the standard setting, the data will be run to establish which student collections met standard and which did not. Also, collections that did not meet standard but were close, are identified as collections that may be augmented for the next scoring window—in this case, October 2007.

Reports will be sent to students, buildings, and districts in the same time frame as the WASL scores. They will contain information about strengths and weaknesses beyond an overall statement about meeting or not meeting standard. In writing, students will receive information about persuasive and informational writing; in mathematics, they will receive information about the five content strands and four process strands; in reading, they will receive information about performance on literary and informational texts.

#### Conclusion

The scoring process for the COE closely follows the scoring process used for the WASL with a few important exceptions. The collections will be scored holistically—a single score will be generated to represent the entire collection as opposed to a series of scores that represent a student's WASL test. The collection will be comprised of classroom assignments instead of multiple choice and limited constructed response items. Due to the added complexity of the classroom component, the scoring criteria is more global and tied to a range of standards in a content area. However, with these few differences, the COE scoring process described will produce very strong reliability and validity numbers due to the organization of the scoring. It combines the framework of a large-scale system with the specificity necessary to recognize the same standards in different assignments.

## **Reading Scoring Criteria for Literary Text**

Reading	Evidence of Skill				
Strands and Target	4	3	2	1	
Literary Comprehension					
Theme	Identifies the main theme and uses evidence to demonstrate an overall understanding of the text	Identifies a theme and uses supporting details as evidence	<ul> <li>Identifies a theme and includes details</li> </ul>	Lists a theme or a detail	
Summary	Summarizes by providing an overarching statement about the text that connects to at least three events from the beginning, middle and end of text	Summarizes by including information from the beginning, middle, and end of the text	Retells by including details or events	Lists events and/or details	
	Infers and/or predicts about key elements of the text making connections with	Makes inferences and/or predictions based on information in the text	Infers or makes a prediction about the text	Infers or predicts about an idea	
Inference / Prediction	Explains key vocabulary with both denotative and connotative definitions by linking them to the text	Applies denotative definitions to explicate text	Identifies key vocabulary in the text	Lists vocabulary in the text	
Literary Vocabulary					
Literary Analysis					

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Applies knowledge of key literary elements to enhance and expand	Analyzes major literary elements to support understanding of text	Identifies literary elements to support understanding	Locates literary elements
Compares and contrasts ideas to explain concepts within or between text	Compares and contrasts ideas within or between the text(s)	Compares or contrasts ideas within the text	Lists single details about a compare or contrast idea
<ul> <li>Analyzes text to explain the relationship between cause(s) and effect(s) and links it back to the theme or main idea</li> </ul>	Analyzes text to show the cause(s) in relation to the effect(s)	Identifies cause(s) and effect(s) in the text	Lists cause(s) and/or effect(s)
Evaluate author's/ text's	Evamines author's /	Identifies the author's/	States author's purpose
purpose and/or in order to judge effectiveness on intended audience	text's purpose and/or identifies intended audience	text's purpose and/or target audience	or audience
Evaluates reasoning of ideas / themes within the text and makes connections with evidence	Evaluate reasoning of author's ideas / text's themes within the text	Evaluates text based on personal feelings, beliefs, and/or experiences	States an opinion, personal feeling, or belief
Synthesizes information beyond the text by making generalizations, drawing conclusions, or applying information to evaluate a new text or context	Extends information beyond the text by making generalizations, drawing conclusions, or applying information to a new text or context	Uses understanding of the text to make general statements about a new text or context	Makes general statements about a new context
	literary elements to enhance and expand understanding of text  Compares and contrasts ideas to explain concepts within or between text  Analyzes text to explain the relationship between cause(s) and effect(s) and links it back to the theme or main idea  Evaluate author's/ text's purpose and/or in order to judge effectiveness on intended audience  Evaluates reasoning of ideas / themes within the text and makes connections with evidence  Synthesizes information beyond the text by making generalizations, drawing conclusions, or applying information to evaluate a new text or	<ul> <li>literary elements to enhance and expand understanding of text</li> <li>Compares and contrasts ideas to explain concepts within or between text</li> <li>Analyzes text to explain the relationship between cause(s) and effect(s) and links it back to the theme or main idea</li> <li>Evaluate author's/ text's purpose and/or in order to judge effectiveness on intended audience</li> <li>Evaluates reasoning of ideas / themes within the text and makes connections with evidence</li> <li>Synthesizes information beyond the text by making generalizations, drawing conclusions, or applying information to evaluate a new text or</li> <li>Compares and contrasts ideas within or between the text(s)</li> <li>Analyzes text to show the cause(s) in relation to the effect(s)</li> <li>Examines author's / text's purpose and/or identifies intended audience</li> <li>Evaluate reasoning of author's ideas / text's themes within the text</li> <li>Extends information beyond the text by making generalizations, drawing conclusions, or applying information to a</li> </ul>	elements to support understanding of text  Compares and contrasts ideas to explain concepts within or between taxt  Analyzes text to explain the relationship between cause(s) and effect(s) and links it back to the theme or main idea  Evaluate author's/ text's purpose and/or in order to judge effectiveness on intended audience  Evaluates reasoning of ideas / themes within the text and makes connections with evidence  Synthesizes information beyond the text by making generalizations, drawing conclusions, or applying information to evaluate a new text or  elements to support understanding  elements to support understanding  Compares and contrasts ideas within or between the text (s)  Evaluates text to show the cause(s) in relation to the effect(s) in the text  Examines author's / text's purpose and/or identifies intended audience  Examines author's / text's purpose and/or identifies intended audience  Evaluate reasoning of author's ideas / text's themes within the text  Evaluates reasoning of author's ideas / text's themes within the text  Extends information beyond the text by making generalizations, drawing conclusions, or applying information to a elements to support understanding  Compares and contrasts ideas within or between the text(s)  Examines author's / text's purpose and/or target audience  Evaluates reasoning of author's ideas / text's themes within the text  Evaluates reasoning of author's / text's purpose and/or target audience  Evaluates text based on personal feelings, beliefs, and/or experiences

## **Reading Scoring Criteria for Informational Text**

Reading	Evidence of Skill			
_	4	3	2	1
Informational Comprehension				
Main Idea	Identifies the main idea and uses supporting details to demonstrate an overall understanding	Identifies the main idea and uses supporting details as evidence	Identifies a main idea and includes details	Identifies an idea or a detail
Summary	Summarizes by conceptually connecting details, facts, or information from sections of the text	Summarizes by including key information from sections of the text	Retells by including details, facts, or information	Lists details, facts, or information
Inference / Prediction	Infers and/or predicts about subject by using text-based evidence to make connections between ideas	Infers or predicts about subject using evidence from the text	Infers or predicts about the text	Infers or predicts about an idea
Informational Vocabulary	Explains key vocabulary with both denotative and connotative definitions from examples within the text	Uses denotative definitions of key vocabulary in context of text	Identifies key vocabulary in the text	Locates vocabulary in the text
Informational Analysis				
Text Features	<ul> <li>Applies knowledge of text features to enhance and expand understanding of text</li> <li>Compares and contrasts</li> </ul>	Analyzes text features     to support     understanding of the     text	Identifies key text features	Locates text features
Compare / Contrast	<ul> <li>ideas to explain concepts within the text</li> <li>Analyzes text to explain the</li> </ul>	Compares and contrasts ideas within the text	Compares <u>or</u> contrasts ideas within the text	Provides detail(s) about ideas within text
Cause / Effect	relationship between key examples of cause(s) and effect(s) within the text's subject	Analyzes text to demonstrate understanding of cause and effect within a text	Identifies cause(s) and effect(s) in a text	Lists cause(s) and effect(s)

Informational Evaluation				
Author's / Text's Purpose	<ul> <li>Evaluate author's / text's purpose and/or distinguishes between fact and opinion in order to determine effectiveness of text on audience</li> </ul>	Judges author's / text's purpose and/or distinguishes between fact and opinion	Identifies the author's /     text's purpose and/or     states fact or opinion	States purpose, a fact, or an opinion
Evaluation	<ul> <li>Evaluates reasoning of ideas / themes within the text and make connections to larger concepts</li> </ul>	Evaluate reasoning of ideas / themes within the text	Evaluates text based on personal feelings, beliefs, and/or experiences	States an opinion, personal feeling, or belief
Extends Beyond the Text	Extends information beyond the text by making generalizations, drawing conclusions, or applying information to evaluate a new subject or context	Extends information beyond the text by making generalizations, drawing conclusions, or applying information to a new subject or context	Uses information from the text to make general statements about a new subject or context	Makes general statements about a new subject or context

## Writing COS Scoring Criteria

Maitin a	Evidence of Skill				
Writing	4	3	2	1	
	<ul> <li>Has clear, focused main ideas or positions</li> <li>Elaborates by using reasons/arguments, well-chosen and specific details, examples, anecdotes, facts and/or statistics as evidence to support ideas or position</li> <li>Includes information that is thoughtful and useful for audience to know</li> <li>Organizes writing to make the best cases to explain ideas or support a position</li> <li>Introductions engage reader's attention</li> <li>Writes conclusions that leave the reader with something to think about</li> <li>Organizes writing into effective, cohesive paragraphs</li> <li>Provides transitions which clearly serve to connect ideas</li> <li>Uses language effectively by exhibiting word choices that are effective and appropriate for intended audience and purpose</li> <li>Writes (where appropriate) sentences or phrases that are varied in length and structure</li> <li>Provides the reader with a sense of the person behind the words.</li> </ul>	Maintains adequate focused main ideas or positions     Elaborates by using reasons/arguments, adequate details, examples, anecdotes, facts and/or statistics as evidence to support ideas or position     Includes some information that is thoughtful and useful for the audience to know     Has logical organizational patterns, although some lapses may occur     Introductions sometimes draw the reader into the main idea or position     Sometimes writes conclusions that leave the reader with something to think about     Organizes writing into meaningful paragraphs     Provides adequate transitions which serve to connect ideas     Uses adequate language and appropriate word choices for intended audience and purpose     Writes sentences or phrases that are somewhat varied in length and structure     Provides the reader with some sense of the person behind the words.	Has a broad or inconsistent focus on main ideas or positions     Includes some supporting details and may include listed, extraneous and/or loosely related material     Sometimes includes information that is thoughtful and useful for the audience to know     Shows attempts at organizational patterns     Introductions are often formulaic, predictable     Conclusions are often repetitious     Organizes writing into loosely structured and/or unfocused paragraphs     Provides transitions which are formulaic, weak or inconsistent     Uses common, limited and/or predictable vocabulary which may be inappropriate for intended audience, purpose, and form     Shows limited variety in sentence length and structures     Provides the reader with a limited sense of the person behind the words.	Demonstrates little or no focus Provides few supporting details which may be inconsistent or interfere with the meaning of the text Rarely includes information that is thoughtful and useful for the audience to know Has little evidence of organizational patterns Introductions are lacking or undeveloped Conclusions are lacking or undeveloped Often only one paragraph that demonstrates a lack of organizing ideas into paragraphs Provides transitions that are poorly used or fails to provide transitions Has limited or inappropriate vocabulary for intended audience, purpose, and form Has little or no variety in sentence length or structures Provides the reader with little sense of the person behind the words	

## **Writing Scoring Criteria**

ys the rules of ard English with xceptions: sage belling of commonly sed words	Consistently follows the rules of Standard English for:  usage spelling of commonly	1 Generally follows the rules of Standard English for:  usage	Mostly does not follow the rules for Standard English for:  usage
ard English with xceptions: sage pelling of commonly	rules of Standard English for:  usage	rules of Standard English for:  usage	the rules for Standard English for:
		<ul> <li>spelling of commonly</li> </ul>	spelling of commonly
apitalization unctuation khibits the use of emplete sentences kcept where urposeful phrases clauses are used or effect icates paragraphs asistently	used words capitalization punctuation exhibits the use of complete sentences except where purposeful phrases or clauses are used for effect indicates paragraphs consistently	used words  capitalization  punctuation  exhibits the use of complete sentences except where purposeful phrases are used for effect  indicates paragraphs for the most part	used words capitalization punctuation exhibits errors in sentence structure that impede communication mostly does not indicate paragraphs
×	chibits the use of omplete sentences accept where urposeful phrases clauses are used or effect acates paragraphs	<ul> <li>exhibits the use of complete sentences except where purposeful phrases clauses are used or effect except sentences except where purposeful phrases or clauses are used for effect</li> <li>indicates paragraphs</li> </ul>	<ul> <li>exhibits the use of complete sentences except where purposeful phrases clauses are used or effect effect</li> <li>exhibits the use of complete sentences except where purposeful phrases or clauses are used for effect</li> <li>exhibits the use of complete sentences except where purposeful phrases are used for effect</li> <li>indicates paragraphs</li> </ul>

## **Mathematics Scoring Criteria**

Strand	EALR*	Evidence of Skill			
	EALK	4	3	2	1
NS*:	EALR I: Content- Skills and Knowledge	Uses high school content knowledge and procedures with supporting work in:	Uses high school content knowledge and procedures with supporting work but with a calculation error in:	Uses high school content knowledge and procedures with supporting work but with a conceptual error in:	Uses high school content knowledge and procedures that have very little or no supporting work in:
GS*:	Kilowieuge	1. Number Sense (NS) 2. Measurement (ME)	Number Sense (NS)     Measurement (ME)	Number Sense (NS)     Measurement (ME)	1. Number Sense (NS) 2. Measurement (ME)
PS*:		3. Geometric Sense (GS) 4. Probability & Statistics	Geometric Sense (GS)     Probability & Statistics	Geometric Sense (GS)     Probability & Statistics	Geometric Sense (GS)     Probability & Statistics
AS*:		(PS) 5. Algebraic Sense (AS)	(PS) 5. Algebraic Sense (AS)	(PS) 5. Algebraic Sense (AS)	(PS) 5. Algebraic Sense (AS)
SP(a):	EALR II: Process- <u>S</u> olves <u>P</u> roblems	Applies one or more strategies that lead to the answer	Applies one or more strategies that could lead to the answer but has a calculation error	Applies one or more strategies that could lead to the answer but has a conceptual error	<ul> <li>Provides no evidence of applying a strategy</li> </ul>
SP(b):		Determines the answer to the problem	Determines an answer to the problem that follows from a calculation error	Determines an answer to the problem that follows from a conceptual error	Determines an answer to the problem that follows from calculation and conceptual errors
RL:	EALR III: Process- <u>R</u> easons <u>L</u> ogically	Justifies conclusions, results, and/or answers by addressing the conditions and/or constraints in the problem	Justifies conclusions, results, and/or answers but may omit one of the conditions or constraints in the problem	Justifies conclusions, results, and/or answers but may omit two or more of the conditions or constraints in the problem	Justifies a conclusion, result, and/or answer but the justification is not relevant to the conditions or constraints of the problem
CU:	EALR IV: Process- Communicates Understanding	Gathers, represents, and/or shares mathematical information using clear mathematical language and organization	Gathers, represents, and/or shares mathematical information using some mathematical language and organization	Gathers, represents, and/or shares mathematical information but lacks mathematical language or organization	Gathers, represents, and/or shares mathematical information but lacks mathematical language and organization
MC:	EALR V: Process- <u>M</u> akes <u>C</u> onnections	Uses and relates different mathematical models and representations of the same situation using clear mathematical language and organization	Uses and relates different mathematical models and representations of the same situation using some mathematical language and organization	Uses and relates different mathematical models and representations of the same situation but lacks mathematical language or organization	Uses and relates different mathematical models and representations of the same situation but lacks mathematical language and organization

<sup>\*</sup>NS = Number Sense, ME = Measurement, GS = Geometric Sense, PS = Probability and Statistics, AS = Algebraic Sense