

## High Quality Assessment Content Validity Review Tool

To understand the review process and the use of the review tool, go to:

[How to use the Assessment Review Tool](http://pals.sri.com/tasks/9-12/VitaminC/directs.html)

<b>Content Area: Science</b>
<b>Name of Assessment: PALS - Vitamin C Testing <a href="http://pals.sri.com/tasks/9-12/VitaminC/directs.html">http://pals.sri.com/tasks/9-12/VitaminC/directs.html</a></b>
<b>Reviewer: Content Collaborative</b>
<b>Date of Review: 9/20/2012</b>

This assessment item is only a part of the body of evidence around Physical Science GLE 4 which resulted in Partially Recommended. This task requires a specific pH indicator (indophenol) which may not be available at all schools. Indophenol is used specifically to indicate the presence of Vitamin C.

Assessment Profile									
<p><b>Item Types - check all that apply (note: there is often overlap among certain item types):</b></p> <p><b>Selected Response</b> (multiple choice, true-false, matching, etc.)</p> <p><b>Short Answer</b> (short constructed response, fill in a graphic organizer or diagram, explain your thinking or solution, make and complete a table, etc.)</p> <p><b>Extended Response</b> (essay, multi-step response with explanation and rationale required for tasks)</p> <p><b>Product</b> (research paper, editorial, log, journal, play, poem, model, multimedia, art products, script, musical score, portfolio pieces, etc.)</p> <p><b>Performance</b> (demonstration, presentation, science lab, dance or music performance, athletic performance, debate, etc.)</p> <p><b>Process</b> (creation, development, design, exploration, imagining, visualization, experimentation, invention, revision)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">Check All That Apply</th> </tr> </thead> <tbody> <tr><td style="background-color: yellow;"> </td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;"> </td></tr> <tr><td style="background-color: yellow;"> </td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;"> </td></tr> </tbody> </table>	Check All That Apply		x			x		
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x									
<p><b>The assessment includes:</b></p> <p><b>Teacher directions</b> (may include prerequisites/description of instruction before giving the assessment e.g., this assessment should be given after students have learned ...)</p> <p><b>Scoring Guide/Rubric</b></p> <p><b>Sample evidence to show what student performance might look like</b></p> <p><b>Materials</b> (if needed to complete the assessment)</p> <p><b>Estimated time for administration</b></p> <p><b>Student Directions &amp; Assessment Task/Prompt</b> – what does the student see/use?</p> <p><b>Other:</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">Check All That Apply</th> </tr> </thead> <tbody> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;">x</td></tr> <tr><td style="background-color: yellow;"> </td></tr> </tbody> </table>	Check All That Apply	x	x	x	x	x	x	
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### A high quality assessment should be...Aligned

Alignment	Rating Column	Comments
<p><b>1a.</b></p> <p>Grade Level(s): High School</p> <p>Indicate the Colorado Academic Standards and Grade Level Expectations evaluated by the Assessment: SC09-GR.HS-S.1-GLE.4</p> <p>Indicate the intended DOK range of the Grade Level Expectations: 1-3</p> <p>Indicate the intended DOK of the assessment (list DOK levels) : 2-3</p>		<p>Opportunities exist in the assessment for students to organize data in a table and a graph.</p>
<p><b>1b.</b> Describe the content knowledge/concepts assessed by the set of items or the performance task: pH, data analysis and interpretation, construction of hypothesis, titration skills</p>		
<p><b>1c.</b> List the skills/performance assessed (what are students expected to do?): Develop, communicate, and justify evidence; Gather, analyze, and interpret data</p>		
<p><b>1d.</b> To what extent do you see a strong content match between the set of items reviewed or the task and the corresponding Colorado Academic Standard/s? <b>Use the definitions below to select your rating.</b></p> <p><input type="checkbox"/> <b>Full match</b> – all tasks or items fully address or exceed the relevant skills and knowledge described in the corresponding state standard/s.</p>		
<p> </p>		

<input type="checkbox"/> <b>Close match</b> – most tasks or items address the relevant skills and knowledge described in the corresponding state standard/s. <input type="checkbox"/> <b>Partial match</b> – many tasks or items partially address the skills and knowledge described in the corresponding state standard/s. <input type="checkbox"/> <b>Minimal match</b> – some tasks or items match some relevant skills and knowledge described in the corresponding state standard/s. <input type="checkbox"/> <b>No match</b> – task or most items are not related to the skills and knowledge described in the corresponding state standard/s. <b>Please provide evidence from both the standards and assessment to support your response: Students are completing an assessment task for Physical Science GLE 4 using many of the EO, but it is only one assessment task.</b>		
	Full Match=5; Close Match=4; Partial Match=3; Minimal Match=2; No Match= 1	
<b>Aligned to Colorado Academic Standards Rating</b>	<b>4</b>	
	<b>Rating Column</b>	<b>Comments</b>
<b>1e. Are the set of items or tasks reviewed as cognitively challenging as the grade level expectations? Use the definitions below to select your rating.</b> <input type="checkbox"/> <b>More rigorous</b> – most items or the tasks reviewed are at a higher DOK level than the range indicated for the grade level expectations. <input type="checkbox"/> <b>Similar rigor</b> – most items or the task reviewed are similar to the DOK range indicated for the grade level expectations. <input type="checkbox"/> <b>Less rigor</b> – most items or the task reviewed are lower than the DOK range indicated for the grade level expectations. <b>Please provide evidence from both the grade level expectations and assessment to support your response: This assessment is within the DOK range of the standards.</b>		
	Similar Rigor=2, More Rigor=1, Less Rigor=1	
<b>Rigor Level Rating</b>	<b>2</b>	

## A high quality assessment should be...Scored using Clear Guidelines and Criteria

Scoring Guide Present	x	Comments
<input type="checkbox"/> <b>Answer key, scoring template, computerized/machine scored</b> <input type="checkbox"/> <b>Generalized Rubric</b> (e.g., for persuasive writing, for all science labs) <input type="checkbox"/> <b>Task-Specific Rubric</b> (only used for the particular task) <input type="checkbox"/> <b>Checklist</b> (e.g., with score points for each part) <input type="checkbox"/> <b>Teacher Observation Sheet/ Observation Checklist</b>	x	The scoring criteria provided with the assessment does not allow for a high level of rigor for high school students. The expected responses are clearly defined (bar graph) and does not allow for different representations of the evidence. As with any points based scoring guide, caution is encouraged with the scoring criteria.
	x	
	x	
	x	
	x	
	<b>Rating Column</b>	
<b>2a. Does the rubric/scoring criteria align to Colorado Academic Standards in this assessment. Provide an explanation of your response: The rubric is closely aligned to the standards because the task is aligned to the standards.</b>	Yes=3, Somewhat=2, No=1	
<b>Rubric Aligned to Standards Rating</b>	<b>3</b>	
<b>2b. Are the score categories clearly defined and coherent across performance levels? Provide an explanation of your response: The scoring rubric is points based and very little depth is encouraged within the rubric.</b>	Yes=3, Somewhat=2, No=1	
<b>Rubric/Scoring Coherent Rating</b>	<b>2</b>	
<b>2c. To what degree does the rubric/scoring criteria address all of the demands within the task or item? Provide an explanation of your response. All of the items within the assessment task have related rubrics within the scoring criteria.</b>	High=3, Moderate=2, Low or None=1	
<b>Rubric/Scoring Aligned with Task Rating</b>	<b>3</b>	
<b>2d. Based on your review of the rubric/scoring criteria, do you think the scoring rubric would most likely lead different raters to arrive at the same score for a given response. Provide an explanation of your response. Different graders may interpret the scoring rubric differently, especially within the graphing section of the scoring guide.</b>	Yes=3, Somewhat=2, No=1	

Rubric/Scoring Different Raters Same Rating

2

**2e.** Is there student work (e.g., anchor papers, video, portfolio) which illustrates student mastery? If so, describe. If not, what student work would be needed? Student work is provided as anchor examples. We urge caution as one of the graphs was scored as a 2, but probably should not have been scored this high.

Yes=3, Somewhat=2,  
No=1

Student Work Samples Rating

3

## A high quality assessment should be...FAIR and UNBIASED

FAIR and UNBIASED (the areas below should be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)	Rating Column	Comments
<p><b>3a.</b> To what extent are most of the items or the tasks designed and formatted to be visually clear and uncluttered (e.g., use of white space, graphics, and illustrations)? <b>Provide an explanation of your response: The assessment task is visually clear and uncluttered. There are a few typos, probably related to the scanning process. Within the student task, indophenol is misspelled twice.</b></p>	<p>High=3, Moderate=2, Low=1</p>	<p>This assessment task requires students to watch for color changes within liquids. This may be problematic for color blind students.</p>
<p style="text-align: center;"><b>Clear &amp; Uncluttered Rating</b></p>	<p style="text-align: center;"><b>3</b></p>	
<p><b>3b.</b> To what extent are most of the items or the task presented in as straightforward a way as possible for a range of learners? <b>Provide an explanation of your response: The lab directions are simple and clear for students to follow. The questions within the assessment task are specific and straightforward.</b></p>	<p>High=3, Moderate=2, Low=1</p>	
<p style="text-align: center;"><b>Straight Forward Rating</b></p>	<p style="text-align: center;"><b>3</b></p>	
<p><b>3c.</b> To what degree is the vocabulary and context(s) presented by most of the items or task free from cultural or other unintended bias? <b>Provide an explanation of your response: There is no intended bias. Some examples of different foods are given, but should not be a concern for most learners.</b></p>	<p>High=3, Moderate=2, Low=1</p>	
<p style="text-align: center;"><b>Free of Cultural or Unintended Bias Rating</b></p>	<p style="text-align: center;"><b>3</b></p>	
<p><b>3d.</b> Does the assessment use appropriate levels of academic language for the grade and content area? <b>Provide an explanation of your response. The academic language is appropriate for the task.</b></p>	<p>Yes=3, Somewhat=2, No=1</p>	
<p style="text-align: center;"><b>Academic Language Rating</b></p>	<p style="text-align: center;"><b>3</b></p>	
<p><b>3e.</b> Does the assessment limit the usage of words that can be confused with one another (homonyms)? (Examples: ate/eight; sell/cell; allowed/aloud; beet/beat; by/buy). <b>Provide an explanation of your response. No homonyms found.</b></p>	<p>Yes=3, Somewhat=2, No=1</p>	
<p style="text-align: center;"><b>Confusing Language Rating</b></p>	<p style="text-align: center;"><b>3</b></p>	
<p><i>*Please reference "Defining Features of Academic Language in WIDA's Standards" (<a href="http://wida.us/searchResults.aspx?cx=0001878867407992537742:bikids4gwcy&amp;cof=FORID:10&amp;q=Defining%20Features%20of%20Academic%20Language">http://wida.us/searchResults.aspx?cx=0001878867407992537742:bikids4gwcy&amp;cof=FORID:10&amp;q=Defining%20Features%20of%20Academic%20Language</a>)</i></p>		
<p><b>3f.</b> If applicable, what type of accommodations are provided to ensure that English Learners and/or Students with Disabilities can fully access the content represented by the task or set of items reviewed? <b>Provide an explanation of your response. There are no specific accommodations given within the teacher directions.</b></p>		
<p><i>Accommodations are commonly categorized in five ways: presentation, response, setting, and timing and scheduling:</i></p> <ul style="list-style-type: none"> <li>o <b>Presentation Accommodations</b> —Allow students to access information in ways that do not require them to visually read standard print. These alternate modes of access are auditory, multi-sensory, tactile, and visual.</li> <li>o <b>Response Accommodations</b> —Allow students to complete activities, assignments, and assessments in different ways or to solve or organize problems using some type of assistive device or organizer.</li> <li>o <b>Setting Accommodations</b> —Change the location in which a test or assignment is given or the conditions of the assessment setting.</li> <li>o <b>Timing and Scheduling Accommodations</b> —Increase the allowable length of time to complete an assessment or assignment and perhaps change the way the time is organized.</li> <li>o <b>Linguistic Accommodations</b>— Allow English language learners (ELLs) to access academic construct measured by reducing the linguistic load of an assessment. The accommodation is based on an ELL's limited English language proficiency, which is different than an accommodation based on a student's disability or a cognitive need.</li> </ul>		
<p><b>3g:</b> Are there adequate accommodations permitted for this assessment? <b>Provide an explanation of your response. Accommodations are not specifically addressed.</b></p>	<p>Yes, Some identified=2; None identified =1</p>	
<p style="text-align: center;"><b>Adequate Accommodations Allowed Rating</b></p>	<p style="text-align: center;"><b>1</b></p>	

## A high quality assessment...Increases Opportunities to Learn

Opportunities to Learn <i>(the areas below should also be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)</i>	Rating Column	Comments	
4a. Does this assessment engage a student in thinking that connects to a real world, new context, situation, problem or challenge? <b>Provide an explanation of your response: This assessment task is highly applicable to real world contexts. The end question asking students to create a new hypothesis transferred to a new context encourages higher level thinking skills and provides a new challenge for students.</b>	High=3; Moderate=2; Low or None=1		
<b>Engagement Rating</b>	<b>3</b>		
4b. To what extent do you think the knowledge and skills tested by the assessment can provide good information about what students have learned in the classroom? <b>Provide an explanation of your response: This assessment task is a good summative task around the use of pH indicators and real world applications of pH.</b>	High=3; Moderate=2; Low or None=1		
<b>Classroom Learning Rating</b>	<b>3</b>		
4c. To what degree do the results from this assessment ( <i>scores and student work analysis</i> ) foster meaningful dialogue about learning expectations and outcomes with students and parents? <b>Provide an explanation of your response: Opportunities for students to communicate their understandings around interpretation of data exist and applying their thinking to a new situation allows for meaningful dialogue with students and parents.</b>	High=3; Moderate=2; Low or None=1		
<b>Learning Expectations/Outcomes Rating</b>	<b>3</b>		
4d. To what extent do you believe the assessment allows students to demonstrate academic excellence (e.g., creativity, transference to other content areas or 21st Century skills) to students? <b>Provide an explanation of your response: This assessment task asks students to find the Vitamin C level of common beverages and then transfer this experience to a new situation. As this is a performance task, 21st Century Skills are utilized.</b>	High=3; Moderate=2; Low or None=1		
<b>Communicate Academic Excellence Rating</b>	<b>3</b>		
4e. Based on the content evaluated by the task or the set of items reviewed, to what extent do you think teachers can use the results ( <i>scores and student work analysis</i> ) to understand what competency on standard/s look like? <b>Provide an explanation of your response: This assessment meets GLE 4 in terms of pH indicators. This is only a small portion of a body of evidence around GLE 4.</b>	High=3; Moderate=2; Low or None=1		
<b>Competency on Standards Rating</b>	<b>3</b>		
4f: Based on the content evaluated by the task or the set of items reviewed, to what extent do you think teachers can identify what purpose the assessment serves (e.g. diagnostic, report card grades, adjusting instruction, etc.)? <b>Provide an explanation of your response: Teachers are able to determine appropriate uses of this assessment - formative, interim and summative, depending on intended application within the classroom.</b>	High=3; Moderate=2; Low or None=1		
<b>Clarity of Purpose Rating</b>	<b>3</b>		
<b>Summary</b>			
	<b>Earned</b>		<b>Possible</b>
Standards Rating	4	5	
Rigor Rating	2	2	
Subtotal	6	7	
		85.7%	
Rubric Aligned w/Standards Rating	3	3	
Rubric/Scoring Coherent Rating	2	3	
Rubric/Scoring Aligned with Task Rating	3	3	
Inter-rater Reliability Rating	2	3	
Student Work Samples Rating	3	3	
Subtotal	13	15	
		86.7%	
Clear & Uncluttered Rating	3	3	

Straight Forward Rating	3	3
Free of Cultural or Unintended Bias Rating	3	3
Academic Language Rating	3	3
Confusing Language Rating	3	3
Adequate Accommodations Allowed Rating	1	2
Subtotal	16	17
		94.1%
Engagement Rating	3	3
Reflects Classroom Learning Rating	3	3
Reflects Learning Expectations/Outcomes Rating	3	3
Communicates Academic Excellence Rating	3	3
Competency on Standards Rating	3	3
Locate Evidence Rating	3	3
Subtotal	18	18
		100.0%
Grand Total	53	57
		93.0%

This assessment is: Place an 'X' in the appropriate box

Fully Recommended	
Partially Recommended	x
Not Recommended	