

## 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](#)

This assessment resource has been partially recommended. The AAAS Science Assessment resource is a great resource for diagnosing student misconceptions in science, which is useful at the beginning, middle, and end of a unit of study. This resource will not adequately assess the nature of science and process skills that make up a large part of the CAS for science.

<b>Content Area: Science</b>
<b>Name of Assessment: AAAS Project 2061 Science Assessment: <a href="http://assessment.aaas.org/">http://assessment.aaas.org/</a></b>
<b>Reviewer: Content Collaborative</b>
<b>Date of Review: 10/24/12</b>

Assessment Profile	
<b>Item Types - check all that apply (note: there is often overlap among certain item types):</b>	<b>Check All That Apply</b>
<b>Selected Response</b> (multiple choice, true-false, matching, etc.)	X
<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.)	
<b>Extended Response</b> (essay, multi-step response with explanation and rationale required for tasks)	
<b>Product</b> (research paper, editorial, log, journal, play, poem, model, multimedia, art products, script, musical score, portfolio pieces, etc.)	
<b>Performance</b> (demonstration, presentation, science lab, dance or music performance, athletic performance, debate, etc.)	
<b>Process</b> (creation, development, design, exploration, imagining, visualization, experimentation, invention, revision)	
<b>The assessment includes:</b>	<b>Check All That Apply</b>
<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 ...)	
<b>Scoring Guide/Rubric</b>	X
<b>Sample evidence to show what student performance might look like</b>	
<b>Materials</b> (if needed to complete the assessment)	
<b>Estimated time for administration</b>	
<b>Student Directions &amp; Assessment Task/Prompt</b> – what does the student see/use?	X
<b>Other:</b>	

### A high quality assessment should be...Aligned

Alignment	Rating Column	Comments
<b>1a.</b> Grade Level(s): 6-8  Indicate the Colorado Academic Standards and Grade Level Expectations evaluated by the Assessment: SC09-GR.8-S.1-GLE.1; SC09-GR.8-S.1-GLE.2; SC09-GR.8-S.1-GLE.3; SC09-GR.8-S.1-GLE.4; SC09-GR.8-S.2-GLE.1; SC09-GR.8-S.2-GLE.2; SC09-GR.8-S.3-GLE.1; SC09-GR.8-S.3-GLE.2; SC09-GR.8-S.3-GLE.3; SC09-GR.8-S.3-GLE.4; SC09-GR.7-S.1-GLE.1; SC09-GR.7-S.2-GLE.1; SC09-GR.7-S.2-GLE.2; SC09-GR.7-S.2-GLE.3; SC09-GR.7-S.2-GLE.4; SC09-GR.7-S.2-GLE.5; SC09-GR.7-S.3-GLE.1; SC09-GR.7-S.3-GLE.2; SC09-GR.6-S.1-GLE.1; SC09-GR.6-S.1-GLE.2; SC09-GR.6-S.1-GLE.3; SC09-GR.6-S.1-GLE.4; SC09-GR.6-S.2-GLE.1; SC09-GR.6-S.2-GLE.2; SC09-GR.6-S.3-GLE.1; SC09-GR.6-S.3-GLE.2; SC09-GR.6-S.3-GLE.3		AAAS Science Assessment is a resource that provides many multiple choice questions for various science topics. DOK is limited to 1-2, possibly 3 for some questions, but the resource provides information regarding how student responses can provide diagnostic information for the teacher. All of the topics align to the CAS, however, teachers would have to select

Indicate the intended DOK range of the Grade Level Expectations: 1-4		questions that align to EO under each GLE.
Indicate the intended DOK of the assessment (list DOK levels) : 1-2		
1b. Describe the content knowledge/concepts assessed by the set of items or the performance task: See comments.		
1c. List the skills/performance assessed (what are students expected to do?): See		
1d. 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> <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. <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: See comments.</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>3</b>	
	<b>Rating Column</b>	<b>Comments</b>
1e. Are the set of items or tasks reviewed as cognitively challenging as the grade level expectations? <b>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: The GLE's are at a DOK 1-4, often as a result of students gathering, interpreting, and analyzing data; as well as designing investigation around the given content. This assessment website generally only assesses student understanding of content within the GLE's, thus a DOK of 1-2.</b>		
	Similar Rigor=2, More Rigor=1, Less Rigor=1	
<b>Rigor Level Rating</b>	<b>1</b>	

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

Scoring Guide Present	Check all that apply:	Comments
<input type="checkbox"/> Answer key, scoring template, computerized/machine scored	X	
<input type="checkbox"/> Generalized Rubric (e.g., for persuasive writing, for all science labs)		
<input type="checkbox"/> Task-Specific Rubric (only used for the particular task)		
<input type="checkbox"/> Checklist (e.g., with score points for each part)		
<input type="checkbox"/> Teacher Observation Sheet/ Observation Checklist		
	<b>Rating Column</b>	
2a. Does the rubric/scoring criteria align to Colorado Academic Standards in this assessment. <b>Provide an explanation of your response: The FAQ's for this national resource indicate that it was created for big ideas in science, but not specific to standards within each state.</b>	Yes=3, Somewhat=2, No=1	
<b>Rubric Aligned to Standards Rating</b>	<b>2</b>	

<p><b>2b.</b> Are the score categories clearly defined and coherent across performance levels? Provide an explanation of your response: Multiple choice questions, however, student misconception are identified with certain responses.</p>	<p>Yes=3, Somewhat=2, No=1</p>	
<p><b>Rubric/Scoring Coherent Rating</b></p>	<p>1</p>	
<p><b>2c.</b> To what degree does the rubric/scoring criteria address all of the demands within the task or item? Provide an explanation of your response: Rubric not applicable. Key indicates what the correct response will be.</p>	<p>High=3, Moderate=2, Low or None=1</p>	
<p><b>Rubric/Scoring Aligned with Task Rating</b></p>	<p>1</p>	
<p><b>2d.</b> 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: Multiple choice has one correct answer.</p>	<p>Yes=3, Somewhat=2, No=1</p>	
<p><b>Rubric/Scoring Different Raters Same Rating</b></p>	<p>3</p>	
<p><b>2e.</b> 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? The information regarding student misconceptions, though not indicating what student mastery would look like, does provide diagnostic information regarding student understanding.</p>	<p>Yes=3, Somewhat=2, No=1</p>	
<p><b>Student Work Samples Rating</b></p>	<p>2</p>	

## 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: Questions are short and concise, many have graphics that accompany them. Answer choices are structured consistently.</b></p>	<p>High=3, Moderate=2, Low=1</p>	
<b>Clear &amp; Uncluttered Rating</b>	<b>3</b>	
<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: Item stems are short and to the point and answer options are clear.</b></p>	<p>High=3, Moderate=2, Low=1</p>	
<b>Straight Forward Rating</b>	<b>3</b>	
<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: The FAQ's page within this resource indicate that these questions have been created to be free of cultural or unintended bias. These were taken into account during the review process for these questions.</b></p>	<p>High=3, Moderate=2, Low=1</p>	
<b>Free of Cultural or Unintended Bias Rating</b>	<b>3</b>	
<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 FAQ's page within this resource indicates that these questions were formulated to be accessible by all students at middle grades to early high school. However, some questions could have unfamiliar language.</b></p>	<p>Yes=3, Somewhat=2, No=1</p>	
<b>Academic Language Rating</b>	<b>2</b>	
<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: With the large number of items that are provided through this resource, it is possible that some have used words that can be confused with one another; however, the developers attempted to create these questions to be accessible to all students so as to get at student misconceptions in science.</b></p>	<p>Yes=3, Somewhat=2, No=1</p>	
<b>Confusing Language Rating</b>	<b>2</b>	
<p>Please reference: <a href="http://wida.us/searchResults.aspx?cx=0001878867407992537742:bjkids4qwcy&amp;cof=FORID:10&amp;q=...">http://wida.us/searchResults.aspx?cx=0001878867407992537742:bjkids4qwcy&amp;cof=FORID:10&amp;q=...</a></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: No accommodations are provided, teachers would have to provide the necessary accommodations.</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> </ul>		

<p><b>o 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.</p>		
<p><b>3g:</b> Are there adequate accommodations permitted for this assessment? <b>Provide an explanation of your response:</b> This resource provides multiple choice questions so it is limited with regard to the accommodations.</p>	<p>Yes, Some identified=2; None identified =1</p>	
<p><b>Adequate Accommodations Allowed Rating</b></p>		<p><b>1</b></p>

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

<p><b>Opportunities to Learn</b> <i>(the areas below should also be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)</i></p>	Rating Column	Comments
<p><b>4a.</b> 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:</b> Despite being multiple choice questions, many use real world contexts and situations to assess student understanding.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Engagement Rating</b></p>		<p><b>2</b></p>
<p><b>4b.</b> 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:</b> In addition to being diagnostic in nature, these items would provide information regarding if students learned the content, or if they have misconceptions.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Classroom Learning Rating</b></p>		<p><b>3</b></p>
<p><b>4c.</b> 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:</b> The results from this assessment would provide basic information regarding student knowledge in the content area, but would not provide as much information regarding the students actual thinking or the skill they have related to this content.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Learning Expectations/Outcomes Rating</b></p>		<p><b>2</b></p>
<p><b>4d.</b> To what extent do you believe the assessment can clearly communicate expectations for academic excellence (e.g., creativity, transference to other content areas or 21st Century skills) to students? <b>Provide an explanation of your response:</b> Multiple choice questions.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Communicate Academic Excellence Rating</b></p>		<p><b>1</b></p>
<p><b>4e.</b> 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:</b> These items will show competency on content but not skills under a given GLE.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Competency on Standards Rating</b></p>		<p><b>2</b></p>
<p><b>4f:</b> 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:</b> This assessment resource clearly indicates that it's purpose is to diagnose student misconceptions through easy to administer multiple choice items. Teachers can use this for pre-assessment purposes or to determine if students learned the content for a given GLE.</p>	<p>High=3; Moderate=2; Low or None=1</p>	
<p><b>Clarity of Purpose Rating</b></p>		<p><b>3</b></p>
<p><b>Summary</b></p>		
	<b>Earned</b>	<b>Possible</b>
Standards Rating	3	5
Rigor Rating	1	2

Subtotal	4	7
		57.1%
Rubric Aligned w/Standards Rating	2	3
Rubric/Scoring Coherent Rating	1	3
Rubric/Scoring Aligned with Task Rating	1	3
Inter-rater Reliability Rating	3	3
Student Work Samples Rating	2	3
Subtotal	9	15
		60.0%
Clear & Uncluttered Rating	3	3
Straight Forward Rating	3	3
Free of Cultural or Unintended Bias Rating	3	3
Academic Language Rating	2	3
Confusing Language Rating	2	3
Adequate Accommodations Allowed Rating	1	2
Subtotal	14	17
		82.4%
Engagement Rating	2	3
Reflects Classroom Learning Rating	3	3
Reflects Learning Expectations/Outcomes Rating	2	3
Communicates Academic Excellence Rating	1	3
Competency on Standards Rating	2	3
Locate Evidence Rating	3	3
Subtotal	13	18
		72.2%
Grand Total	40	57
		70.2%

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

Fully Recommended	
Partially Recommended	X
Not Recommended	