SAGE Testing & Depth of Knowledge

Why can’t SAGE and CRTs be compared?
- Criterion Referenced Tests (CRTs) measure recall and reproduction of information.
- Student Assessment of Growth and Excellence (SAGE) measures begins with recall/reproduction and works toward strategic thinking and reasoning.
- SAGE will be an adaptive test (2015), testing with more complex problems as students master easier ones.
- 2014 SAGE was a pilot year, giving students the full battery of questions to test validity and reliability.
- Because students were given the full battery, testing fatigue most likely played a part in scores.

How is the SAGE test scored?
- Four proficiency levels are set—Proficient (3) and Highly Proficient (4) meet the state standard.
- Scaled scores are reported somewhere between 100-999, depending on the grade and subject.
- Scaled scores are a more precise measurement within the proficiency level and is broken down by category along with an overall scaled score.

What does Depth of Knowledge (DOK) mean?
- SAGE test items were leveled using Karen Hess’ Cognitive Rigor Matrix (Bloom’s Cognitive Process Dimensions configured with Webb’s DOK levels).
- Complexity is based on Bloom’s Cognitive Process Dimensions which include (from less to more complexity): Remember, Understand, Apply, Analyze, Evaluate, and Create.
- Webb’s DOK has four levels: Recall & Reproduction (1), Skills & Concepts (2), Strategic Thinking/Reasoning (3), and Extended Thinking (4).
- SAGE proficiency is expecting students to perform at a minimum DOK level 3 and at more rigorous levels in Bloom’s.
- Working in only DOK 3 or higher will lead to missed opportunities to identify what students know; therefore, a range of experiences is the goal, ending with the higher complexity and depth.

Why is improving DOK important?
- Students entering college and the work force will be expected to think critically and reason to perform in even the most basic of jobs.
- We are training our students to be college and career ready for positions that haven’t been developed.
- With the rapid changes in technology and science, students must be ready to work competently in these and other fields that are ever changing referred to as 21st Century Skills.

What is Nebo School District’s plan to prepare students for SAGE testing?
- We are continuing to hold professional development for our teachers in the Utah Core Standards.
- We are training our administrators and teachers on developing activities and assessments that further support critical thinking and reasoning skills.
# The Hess Cognitive Rigor Matrix: Applies Webb’s DOK to Bloom’s Cognitive Process Dimensions

<table>
<thead>
<tr>
<th>Depth + thinking</th>
<th>Level 1: Recall &amp; Reproduction</th>
<th>Level 2: Skills &amp; Concepts</th>
<th>Level 3: Strategic Thinking/Reasoning</th>
<th>Level 4: Extended Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remember</strong></td>
<td>-Recall, locate basic facts, details, events</td>
<td></td>
<td>Not appropriate at this level</td>
<td></td>
</tr>
<tr>
<td><strong>Understand</strong></td>
<td>-Select appropriate words to use when intended meaning is clearly evident</td>
<td>-Specify or explain relationships</td>
<td>-Explain, generalize, or connect ideas using supporting evidence (quote, example...)</td>
<td>-Explain how concepts or ideas specifically relate to other content domains or concepts</td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>-Use language structure (pre/suffix) or word relationships (synonym/antonym) to determine meaning</td>
<td>-Use context to identify meaning of word</td>
<td>-Use concepts to solve non-routine problems</td>
<td>-Devise an approach among many alternatives to research a novel problem</td>
</tr>
<tr>
<td><strong>Analyze</strong></td>
<td>-Identify whether information is contained in a graph, table, etc.</td>
<td>-Compare literary elements, terms, facts, events</td>
<td>-Analyze or interpret author’s craft (literary devices, viewpoint, or potential bias) to critique a text</td>
<td>-Analyze multiple sources -Analyze complex/abstract themes</td>
</tr>
<tr>
<td><strong>Evaluate</strong></td>
<td></td>
<td>-Cite evidence and develop a logical argument for conjectures</td>
<td></td>
<td>-Evaluate relevancy, accuracy, &amp; completeness of information</td>
</tr>
<tr>
<td><strong>Create</strong></td>
<td>-Brainstorm ideas about a topic</td>
<td>-Generate conjectures based on observations or prior knowledge</td>
<td>-Synthesize information within one source or text</td>
<td>-Synthesize information across multiple sources or texts</td>
</tr>
</tbody>
</table>
Understanding Your Child's Assessment Scores

In the spring of 2014, your student took one or more SAGE assessments measuring his or her knowledge of the Utah Core Standards. These standards reflect the knowledge and skills that students will need to succeed in careers and college. Along with the content standards (the knowledge and skills to be taught), Utah educators have also established proficiency levels that establish a "proficiency score" for the assessment.

The proficiency levels established for SAGE are more challenging than prior assessments. They provide a more realistic assessment of what your student will need to know to succeed in college or start his or her career. These standards include rigorous expectations for post high school readiness that meet nationally and internationally competitive standards.

The guide below points out some key information to help you understand your student’s score report. Please contact your student’s school to get a copy of his or her report. For more information about SAGE, please visit www.schools.utah.gov/SAGE or www.sageportal.org.

1. Students will receive one report for each assessment. This display shows the assessment in which the student participated.

2. This display identifies the student and reports his or her Scale Score and Proficiency Level on the assessment. Both indicate how well students performed on the assessment.

3. This graphic shows your student’s Scale Score on the left, along with an explanation of what it means on the right. Scale score ranges are displayed at the top and bottom of the graphic; for this grade and subject the range is 100-999. Utah educators have established four Proficiency Levels, and the text to the right of the barrel describes each level. Students reaching a level of Proficient or higher are on track to be prepared for post high school success.

4. ELA, math, and science content is measured by the SAGE assessments. This section reports the student’s scale score for each of these content areas as Reporting Categories. The Relative Strengths and Weaknesses Indicator graphically indicates how your student performed in these different content areas, in relation to his or her overall performance on the assessment. The + indicates the student performed better in this category than on the overall assessment. The 0 indicates the student performed similarly to their performance on the overall assessment, and the - indicates the student performed lower in this category than on the overall assessment. Descriptions of the content assessed for each Reporting Category can be found in the new Utah Core Standards posted on the SAGE website (www.schools.utah.gov/SAGE).
The **Average Scale Score** and **Percent Proficient** for all assessed students in the state, district, and school levels can be found in this table. **Average Scale Scores** provide a quick comparison of the student's performance to the average state, district, and school level scale scores. **Percent Proficient** results report the number of students that have reached a level of Proficient or higher.

**Student Performance on Writing** section offers detailed descriptions on how your student performed on the writing portion of the ELA assessment. This section is specific to ELA and does not display on the math and science reports.

**Student Performance Over Time**

**Next Steps**

Families and Utah educators can work together using SAGE student results to improve each student's success in school. If your student is not yet proficient on one or more of the SAGE assessments, or needs additional academic support, please talk to his or her teacher to develop a plan.

The following links provide sample resources for parents that are intended to support your child's learning: