**HSGQE Proficiency Descriptors and WorkKeys Skill Levels**

The tables for Reading and Mathematics below compare the Proficiency Descriptors for HSGQE to the WorkKeys Skills Levels descriptions. This comparison is only of descriptors prepared by EED, Assessment Unit. (A more thorough, rigorous comparison between assessments would need to be done at the item level.) Also, it is not clear which WorkKeys Skill Level (most skill areas are scored from level 3 to level 7) is most equivalent to Proficient on the HSGQE. The tables include the WorkKeys skills for the three main “certificate” levels.

Students in Alaska can earn a career readiness certificate (CRC) by taking WorkKeys assessments in three key skill areas: Reading for Information, Applied Math, and Locating Information.

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| CRC Level | WorkKeys Requirements |
| Bronze | scored at least a level 3 in each of the three core areas and has the necessary foundational skills for 35 percent of the jobs in the WorkKeys database |
| Silver | scored at least a level 4 in each of the three core areas and has the necessary foundational skills for 65 percent of the jobs in the WorkKeys database |
| Gold | scored at least a level 5 in each of the three core areas and has the necessary foundational skills for 90 percent of the jobs in the WorkKeys database |
| Platinum (new) | scored at least a level 6 in each of the three core areas and has the necessary foundational skills for nearly all of the jobs in the WorkKeys database  |

Competency areas highlighted in yellow in the WorkKeys section indicates those areas “may” be more challenging than the required competencies in the HSGQE proficiency descriptors, however significantly more detailed analysis would be required to determine the level of match between HSGQE and WorkKeys requirements.

While writing is required on the HSGQE it is not addressed in this document as writing is not currently a required component of WorkKeys in the Alaska regulations.

**Reading**

This comparison of descriptions for the HSGQE and skills for the WorkKeys assessments seems to show that, as might be expected from the description of the WorkKeys Reading for Information and Locating Information assessments (see below), there is some overlap in the areas of vocabulary; identifying main ideas; summarizing technical information; interpreting charts, graphs, tables, and illustrations; and following directions. There are areas in Summarize Information and especially in Critique Arguments and Make and Support Assertions that do not seem to be addressed by the WorkKeys Reading for Information and Locating Information assessments.

“The WorkKeys *Reading for Information* test measures the skill people use when they read and use written text in order to do a job. The written texts include memos, letters, directions, signs, notices, bulletins, policies, and regulations. It is often the case that workplace communications are not necessarily well-written or targeted to the appropriate audience. Reading for Information materials do not include information that is presented graphically, such as in charts, forms, or blueprints.”

“The WorkKeys *Locating Information* test measures the skill people use when they work with workplace graphics. Examinees are asked to find information in a graphic or insert information into a graphic. They also must compare, summarize, and analyze information found in related graphics.”

*Reading for Information* and *Locating Information* contain informational text that would be found in the work place. The text types in the HSGQE are 60% informational and 40% literature.

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| **HSGQE Proficiency Descriptors of the Minimum Competencies in Essential Skills for Reading** | **WorkKeys Skills****RFI (Reading for Information)****LI (Locating Information)** |
| **Use Context Clues**A student proficient in the minimum competencies in essential skills |  |
| uses context clues to determine the meaning of unfamiliar words within a text. | RFI:L3 Choose the correct meaning of a word that is clearly defined in the reading RFI: L3 Choose the correct meaning of common, everyday workplace words RFI:L4 Use the reading material to figure out the meaning of words that are not defined RFI:L5 Figure out the correct meaning of a word based on how the word is used RFI:L5 Identify the correct meaning of an acronym that is defined in the document RFI:L5 Identify the paraphrased definition of a technical term or jargon that is defined in the document RFI:L5 Apply technical terms and jargon and relate them to stated situations  |
| **Summarize Information**A student proficient in the minimum competencies in essential skills |  |
| summarizes events presented in a passage. |  |
| determines and describes an author’s position and/or viewpoint and applies it to a hypothetical situation. |  |
| identifies relevant details and main ideas in a passage or parts of a passage. | RFI:L3 Identify main ideas and clearly stated details LI:L5 Sort through distracting information  |
| summarizes technical information from a set of directions into a chart. | LI:L4 Summarize information from one or two straightforward graphics LI:L5 Summarize information from one or more detailed graphics  |
| determines the purpose of a text. |  |
| infers connections between ideas and events. | RFI:L4 Identify important details that may not be clearly stated  |
| interprets charts, graphs, tables, and illustrations. | LI:L4 Find several pieces of information in one or two graphics LI:L4 Understand how graphics are related to each other LI:L4 Identify trends shown in one or two straightforward graphics LI:L4 Compare information and trends shown in one or two straightforward graphicsLI:L5 Identify trends shown in one or more detailed or complicated graphics LI:L5 Compare information and trends from one or more complicated graphics |
| interprets information and applies it to new situations. | RFI:L5 Apply straightforward instructions to a new situation that is similar to the one described in the material  |
| **Critique Arguments**A student proficient in the minimum competencies in essential skills |  |
| locates supporting evidence in text. |  |
| sorts and categorizes information. |  |
| applies information from a text. | RFI:L5 Apply complex instructions that include conditionals to situations described in the materials |
| uses evidence to determine and support key ideas. |  |
| describes the purpose behind language in an advertisement. |  |
| differentiates between arguments based on opinions and arguments based on facts. |  |
| **Apply Multi-Step Directions**A student proficient in the minimum competencies in essential skills |  |
| follows multi-step directions to complete a task. | RFI: L3 Choose when to perform each step in a short series of steps RFI: L3 Apply instructions to a situation that is the same as the one in the reading materials RFI:L4 Apply instructions with several steps to a situation that is the same as the situation in the reading materials  |
| determines and explains the reasons for using specific methods to complete a task. | RFI:L4 Choose what to do when changing conditions call for a different action (follow directions that include "if-then" statements) |
| identifies and sequences information from a variety of sources. |  |
| locates specific information from multi-step directions from one or more sources. |  |
| uses information from a chart to fill out a form. | LI: L3Find one or two pieces of information in a graphic LI: L3 Fill in one or two pieces of information that are missing from a graphic  |
| **Make and Support Assertions**A student proficient in the minimum competencies in essential skills |  |
| identifies clear assertions (statements, opinions, or interpretations). |  |
| identifies evidence and details from a text to support assertions. |  |

**Mathematics**

Most of the WorkKeys skills for Applied Math (see the description below) appear to compare to the Estimation and Computation skills of adding, subtracting, multiplying, and dividing numbers in various forms: positive and negative numbers, fractions, decimals, and percents. Some WorkKeys skills overlap with Numeration and Measurement. One skill assesses Geometry; no WorkKey skills cover Statistics and Probability and Functions and Relationships, however we have yet had time to review the new levels (6 and 7). It appears that the higher levels may cover some of these areas.

“Applied Mathematics: This assessment measures the skill people use when they apply mathematical reasoning, critical thinking, and problem-solving techniques to work-related problems. The test questions require the examinee to set up and solve the types of problems and do the types of calculations that actually occur in the workplace. This test is designed to be taken with a calculator. A formula sheet that includes all formulas required for the assessment is provided. While individuals may use calculators and conversion tables to help with the problems, they still need to use math skills to think them through.”

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| HSGQE Proficiency Descriptors of the Minimum Competencies in Essential Skills for Mathematics | WorkKeys SkillsApplied Mathematics (AM) |
| **Problem Solving, Communication, Reasoning, and Connections**A student proficient in the minimum competencies in essential skills | *Problem Solving, Communication, Reasoning, and Connections are Process Skills. Students use Process Skills whenever they solve math problems.* |
| uses appropriate symbols to justify solutions to mathematics problems. |  |
| uses a variety of problem-solving strategies (guess and check, working backwards, diagrams, patterns, etc.). |  |
| solves multi-step problems in real-world context. | AM:L5 Find the best deal using one- and two-step calculations and then comparing results  |
| **Numeration**A student proficient in the minimum competencies in essential skills |  |
| reads, writes, models, and orders positive and negative numbers including fractions, decimals, percents, square roots, and numbers with simple exponents. |  |
| converts between fractions, decimals, and percents. | AM: L3 Change numbers from one form to another using whole numbers, fractions, decimals, or percentages  |
| compares, orders, and uses data containing mixed units of measurement (hours and minutes, feet and inches, metric units). | AM:L5 Calculate using mixed units (e.g., 3.5 hours and 4 hours 30 minutes)  |
| expresses numbers in scientific notation. |  |
| applies basic order of operations and rules of divisibility. | AM:L4 Put the information in the right order before performing calculations |
| **Measurement**A student proficient in the minimum competencies in essential skills |  |
| accurately measures and draws distances and angles using a ruler or protractor. |  |
| estimates and converts measurements of length and weight within the same system or between systems (standard and metric). | AM:L5 Decide what information, calculations, or unit conversions to use to solve the problem AM:L5 Look up a formula and perform single-step conversions within or between systems of measurement  |
| identifies the appropriate tool and /or unit of measure with which to measure objects. |  |
| solves problems involving rate, distance, time, scale, and money. | AM: L3 Convert simple money and time units (e.g., hours to minutes)  |
| reads, writes, and uses money notation, determining possible combinations of coins and bills to equal given amounts; counts back change for any given situation. |  |
| **Estimation and Computation**A student proficient in the minimum competencies in essential skills  |  |
| adds, subtracts, multiplies, and divides numbers in various forms: positive and negative numbers, fractions, decimals, and percents. | AM: L3 Solve problems that require a single type of mathematics operation (addition, subtraction, multiplication, and division) using whole numbers AM: L3 Add or subtract negative numbers AM:L4 Solve problems that require one or two operations AM:L4 Multiply negative numbers AM:L4 Add commonly known fractions, decimals, or percentages (e.g., 1/2, .75, 25%) AM:L4 Add up to three fractions that share a common denominator AM:L4 Multiply a mixed number by a whole number or decimal AM:L5 Divide negative numbers AM:L5 Calculate percent discounts or markups |
| solves multi-step problems using ratios and proportions. | AM:L4 Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals  |
| rounds numbers appropriately to solve problems. |  |
| simplifies expressions involving simple exponents. |  |
| **Functions and Relationships**A student proficient in the minimum competencies in essential skills |  |
| analyzes, extends, and applies visual, numeric, and geometric patterns. |  |
| evaluates and simplifies algebraic expressions and equations. |  |
| converts representation of data between graphs, tables, and linear equations. |  |
| solves linear equations, simple inequalities, and systems of linear equations. |  |
| **Geometry**A student proficient in the minimum competencies in essential skills |  |
| identifies and applies properties of angles, polygons, and lines (including parallel, perpendicular, and intersecting lines) |  |
| uses formulas to calculate perimeters, circumferences, and areas | AM:L5 Calculate perimeters and areas of basic shapes (rectangles and circles)  |
| applies the properties of equality and proportionality to solve problems involving congruent or similar shapes |  |
| **Probability and Statistics**A student proficient in the minimum competencies in essential skills |  |
| selects and uses appropriate scales of graphs |  |
| reads data and predicts trends from tables, graphs, and charts |  |
| analyzes, interprets, and appropriately labels bar graphs, line graphs, and circle graphs to display data |  |
| determines the probability of an event |  |
| selects an appropriate sampling group |  |