



**Career
Essentials:
Assessments**

Career Essentials: Assessments

Teacher Preparation Guide For Use with the Career Essentials: Assessments

*Discover, Develop and Validate Students'
Knowledge and Skill*

MASONRY ASSESSMENT

Introduction to the Career Essentials: Assessments

The Career Essentials: Assessments can help both students and teachers discover students' occupational strengths. By implementing the Career Essentials: Assessments, students and teachers can collaboratively develop a life-long learning plan to validate and enhance students' skills and knowledge. Assessment data results are beneficial for students, teachers and administrators in validating student learning, and improving programs and their accountability.

This teacher preparation guide is a tool developed for instructors to help students capitalize on their unique strengths, which can improve individual student performance and provide a clear way forward for student success.

The Career Essentials: Assessments Teacher Preparation Guide provides an easy-to-follow road map to implement the Career Essentials: Assessments. The guide is not meant to be curriculum nor should it replace that which already exists. It provides specific information regarding the Career Essentials: Assessments so teachers can identify existing curriculum areas that may need additional emphasis.

The guide ultimately helps teachers provide students with learning opportunities. Its goal is for students to become comfortable and successful with the Career Essentials: Assessments.

Inside the guide, teachers will find:

- Major content areas of the assessment
- A blueprint of the assessment competency areas
- A checklist of the various competency areas within the assessment
- Access to a trade- or technical-specific online 10-question demo assessment
- Resources used for the assessment development
- Access to an employability skills based, online 10-question practice assessment to help students navigate the assessment system

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What are Career Essentials: Assessments?

Career Essentials: Assessments are online assessments that evaluate technical and employability skills and knowledge. They are the way ahead for the next generation of our American workforce, and they help candidates validate their technical skills and knowledge to potential employers. They also help local instructors demonstrate the value of their programs, while supporting local industries with a pool of potential employees that has been tested by a system they can trust.

Each assessment was developed by a panel of industry, high school and college/postsecondary subject matter experts (SMEs) using national technical standards. Career Essentials: Assessments were created by industry to ensure relevance to entry-level skills, meet Perkins IV accountability requirements and provide certificates to students who achieve industry-defined scores. They ensure your students are workforce ready.

Career Essentials: Assessments incorporate photographs, videos, animations and illustrations to ensure clarity for each technical question. Drag-and-drop and multiple-choice questions appeal to visual and kinesthetic learners and test content knowledge rather than test-taking abilities. Even simple multiple-choice questions are brought to life through pictures and animations.

Assessments are available in more than 40 trade, industrial and technical areas. A rigorous and educationally sound process captures critical competencies, standards and criteria as defined by industry.

Academic core and critical skill areas also exist in each assessment. State-level academic curriculum specialists identified connections to national academic standards.

Each one-hour assessment includes 50 questions. Under the supervision of a proctor, the integrity of each test is ensured by offering multiple unique versions of the assessment, which

For complete information regarding the Career Essentials: Assessments and to see all assessment areas, please visit the website at:

www.careeressentials/assessments.org

measure the same core and critical competencies. Even within the same version, questions and answers are displayed in varying orders to prevent test takers from copying others. The Career Essentials: Assessments are designed to be user-friendly and intuitive for students.

Using the Career Essentials: Assessments

Every classroom is unique. You can use the Career Essentials: Assessments in a way that best suits your program and students. The following directions are SkillsUSA's suggested and preferred method to implement the assessments so that your students gain the most from the results.

The most important step in the Career Essentials: Assessments process is to select the correct assessment for your students. You are key to the selection process. Without your involvement, the wrong assessment may be selected. Assessment titles do not provide enough information for proper selection. Review the various assessment categories that best correspond to your program.

Next, look at each of the assessment titles within the category and the corresponding blueprint. The blueprint will tell you which competencies and subjects are addressed in the assessment.

Cross-walk the various blueprints with your classroom curriculum. The assessment blueprint will show what's emphasized and how competencies are weighed. Please remember the Career Essentials: Assessments are based on national industry standards, so the assessment may not perfectly align with the existing curriculum. Content may need to be added or emphasized to better prepare students for the Career Essentials: Assessments.

Once you have selected the assessment that best fits your program, administer that Career Essentials: Assessments at the beginning of your students' final program year. This could be considered a pre-test.

Assessment results are available as soon as your student completes the assessment. The report provides you with a gap analysis to identify your students' learning needs according to each competency area within the assessment. Dynamic reports compare your students' performance to the current state and national averages. Reports also enable you to track a student's progress on an individual basis. The assessment pre-testing results provide you with a benchmark for your students and identify student learning gaps. This data may help you adjust your own curriculum and identify areas that may need more or less emphasis. The data can be shared with students so everyone can focus on learning areas that need improvement during the school year.

Then, at the end of the school year or program semester, administer your specific Career Essentials: Assessments a second time as a post-test.

Use post-test data to improve or adjust curriculum once again for your next program year. This way, curriculum adjustments are made using the student testing data rather than arbitrarily making adjustments.

This pre- and post-test process is a "win-win" situation for the teacher and especially the student! To ensure a quality process, SkillsUSA is ready to help at any time.

Preparing Students for the Career Essentials: Assessments

Provide each student with a copy of their trade- or technical-specific Career Essentials: Assessments Blueprint. Do this at the beginning of your course. Review and discuss the blueprint with your class, providing insight on the assessment weighting and what is emphasized.

Have students discuss how they can assist each other to prepare for the assessment.

Place the Career Essentials: Assessments Blueprint on the classroom wall. The blueprint will help students focus on the appropriate course content areas that align with the assessment. It will also help everyone to be aware of the program's goals and expectations.

The Career Essentials: Assessments at a Glance

- **Select the correct assessment title. *Do not* have someone select the assessment for you, as there may be several titles that may relate to your program**
- **Review the assessment blueprint that best aligns with your existing curriculum**
- **Identify gaps in your curriculum, and use additional resources to enhance or align the curriculum**
- **Share the assessment blueprint with the students so everyone is aware of the expectation**
- **Have your students take the assessment at the beginning of their final program year as a pre-test**
- **Use pre-test data to identify learning gaps or strengths of individual students or the class**
- **Remediate the students using the data analysis from pre-test to enhance, emphasize and adjust learning objectives**
- **Have your students take the assessment a second time (as a post-test) at the end of the program year to determine learning gains/gaps**
- **Use post-test data to improve or adjust curriculum for your next program year**

Administer the Career Essentials: Assessments as a pre-test to identify student gaps. If possible, pre-test your students at the beginning of their final program year to identify learning gaps both individually and as a class. The data will provide an excellent “road map” to prepare students to take the assessment again (post-test) at the end of the program. Using the data, tailor the instruction to better prepare your students.

Use the Career Essentials: Assessments competency areas checksheets included in this guide to encourage class discussion and help students identify strengths and weaknesses.

Use the pre-test data to ascertain problematic learning areas. Have students identify discussion topics based on the various competency areas and their pre-test data results. Exercises, demonstrations and even questions can be developed by the students using their textbooks or other resources listed in this guide.

Assign homework that aligns to the assessment blueprint. Focus on a competency area within the assessment. Using the checksheets in this guide, have students develop questions and potential answers using the resources identified when developing the assessment. Use the questions for class discussion or “quiz bowl” activities.

Have students take the Career Essentials: Assessments trade- or technical-specific online 10-question demo assessment. This could be a homework assignment or done in class 30 days prior to taking the assessment the second time (as a post-test). This not only will provide students with specific sample questions and potential answers, but it will also allow students to experience the online system again and become more familiar with the types of questions they may encounter when taking the actual assessment.

Following the demo assessment, discuss the experience students had. What question(s) did

they not understand? Did they have difficulty navigating the online system? This experience will help students be more comfortable and confident when taking the final assessment.

Discuss as a class or individually with students which question(s) were difficult. Facilitate a discussion to glean more information regarding why certain answers were wrong. Offer techniques students can use to better determine correct answers.

Workplace-Ready Skills

Through the Career Essentials: Assessments, you have the option for your students take an Employability Assessment. This assessment tests a student’s workplace-ready skills such as communication, teamwork, time management and more. It can be used for any student in any occupational area as a practice test or a separate assessment.

If you use the Employability Assessment as a practice test have students take it in class. Not only can the Employability Assessment help students become familiar with the navigational tools of the assessment system, but it can also measure and make your students aware of another important skill set. It may also help them become comfortable in the testing environment.

See the Career Essentials: Assessments website for more information: www.careeressentials.org/assessments

The Employability Assessment is *not* intended to familiarize students with the Masonry assessment content.

Please note: For all Career Essentials: Assessments to be valid, instructors cannot be present in the room where their students will be taking the test. A proctor is required. Proctors can be other instructors, a school administrator or school counselor.

Assessment Competency Areas

Career Essentials: Assessments Masonry Assessment covers 20 major technical competency areas (unit areas). In the online assessment, these 20 competencies are tested with 50 interactive, multiple-choice items. Each competency area has a different number of items. The chart lists the major technical competency areas and the percentage of the assessment in each one.

Technical Competency Areas for Masonry

Competency	Percentage of Area Assessment
Practice safe brick and masonry techniques according to industry standards	8%
Model safety standards according to and following OSHA regulations	8%
Use hand tools and equipment	2%
Identify and use basic hand tools used in brick masonry	2%
Use measuring tools	2%
Identify and use masonry power tools	8%
Use equipment according to standards set forth by the SkillsUSA Technical Committee	4%
Use masonry levels according to SkillsUSA Technical Committee	4%
Possess an appropriate knowledge of the fundamental theories in brick masonry	10%
Use materials and methods according to industry standards	2%
Prepare mortar according to industry standards	6%
Demonstrate bonding methods according to industry standards	2%
Use tool and point joints according to industry standards	6%

Clean masonry and structural tile according to industry standards	4%
Lay brick and blocks according to industry standards	14%
Construct fireplaces and chimneys according to industry standards	2%
Construct arches, columns and piers according to industry standards	2%
Lay floors, pavers and stairs according to industry standards	2%
Prepare footers according to industry standards	2%
Lay out and establish foundations according to industry standards	6%

Academic Core and Critical Skill Areas

Academic core and critical skill areas also exist in each assessment. The SkillsUSA national technical committee identified that the following academic skills are embedded in the Masonry training program and assessment:

Math Skills

- Use fractions to solve practical problems
- Use proportions and ratios to solve practical problems
- Simplify numerical expressions
- Solve practical problems involving percents
- Measure angles
- Find surface area and perimeter of two-dimensional objects
- Find volume and surface area of three-dimensional objects
- Make predictions using knowledge of probability
- Make comparisons, predictions, and inferences using graphs and charts
- Solve problems using proportions, formulas and functions
- Find slope of a line
- Find arc length and the area of a sector

Science Skills

None Identified

Language Arts Skills

- Provide information in conversations and in group discussions

Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

Math Standards

- Numbers and operations
- Algebra
- Geometry
- Measurement
- Problem solving
- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School Mathematics. To view high school standards, visit: www.nctm.org/standards/content.aspx?id=16909.

Science Standards

- Understands the structure and properties of matter
- Understands the sources and properties of energy
- Understands forces and motion
- Understands the nature of scientific inquiry

Source: McREL compendium of national science standards. To view and search the compendium, visit: www2.mcrel.org/compendium/.

Language Arts Standards

- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of

textual features (e.g., sound-letter correspondence, sentence structure, context, graphics)

- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge
- Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information)

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: www.readwritethink.org/standards/index.html.

Student Tools:

Access Directions for the Trade- or Technical-Specific Online 10-Item Demo Assessment

Have your students copy and paste this link www.careeressentials.org/assessments/demo-our-assessments/ into their browser. The sample programmatic questions will give you and your students an idea of the types of questions on the assessment and how the questions are generally written.

Student Tools:

Test-Taking Reminders

Encourage your students to have good study habits. Below are basic reminders to better prepare students for life-long learning and workplace success. You may want to have this discussion at the beginning of the year to encourage students to incorporate these strategies.

- Develop a regular study schedule
- Identify a specific location to study
- Always take notes while studying in class or on your own
- Take short breaks during your study session

- Perform “mini-testing” to make sure you understand and comprehend the program concepts
- Join small study groups to help focus on the program content
- If you need special assistance in testing, tell your teacher or counselor so they can make accommodations.

Student Testing Tips

The most important tip for your students is to be prepared mentally and physically for the testing session. Make sure to tell them to get plenty of rest and eat healthy. Suggest they wear comfortable and appropriate clothing to the testing session. If they are able to bring items to the testing session, such as a non-programmable calculator, make sure they have the items ready the night before. Have students check our website at www.careeressentials.org/wp-content/uploads/2017/07/Permitted-Testing-Tools-Aids.pdf for permitted tools or job aids that can be used during testing. The more organized they are before the testing period, the more relaxed they will be during the actual testing session.

Encourage your students to be relaxed and positive. If they begin to panic during the testing, suggest they take some deep breaths to relax and think positive thoughts.

Do not rush through the questions. Instruct your students to read the question and potential answers thoroughly. Tell them to make sure they know exactly what the question is asking before answering. Let them know that if they are unsure, they can mark the question and return to it.

Use process of elimination. If your students are not sure of the correct answer, tell them to study the potential answers and eliminate the ones that they know are not correct.

If all else fails, tell students to *guess*. After they have exhausted all options, tell them to take their best guess at the correct answer. If they have studied the content area, they may intuitively

know the correct answer. The Career Essentials: Assessments system does not penalize students for guessing and they may guess correctly!

Student Tools:

Masonry Blueprint and Competency Area Knowledge Checksheets

The next section provides the assessment blueprint and detailed topics within each competency area covered within the Masonry assessment. Photocopy and share the following blueprints and checksheets with your students so they can better prepare for each of the competency areas within the Masonry assessment.

Summary and Quick Glance Testing Reminders

The Career Essentials: Assessments process is designed for program and curriculum improvement. This is a continuous improvement process to better meet the educational needs of your students by strategically using data results.

Advanced planning and preparation is a key component in implementing this process. Below we have attempted to summarize the steps in the suggested Career Essentials: Assessments implementation pre- and post-test process.

- Identify the correct assessment for your program
- Share the selected assessment blueprint with your students, parents, advisory board members and others. Place the blueprint on the classroom wall
- Pre-test your students at the beginning of their final programmatic year
- Use the data results to identify “learning gaps”
- Share the pre-test data with the student(s)
- Tailor learning experiences to meet student needs and supplement current curriculum
- Develop homework assignments around the competency knowledge checksheets located

in this guide

- Have students take the demo 10-question practice test 30 days prior to the post-test
- For students that need more time in the actual testing environment, use the Employability Assessment to review navigational tools and to make students more comfortable in the testing lab
- Finally, review the blueprint and knowledge checksheets in totality before taking the post-test to ensure students are aware of the expectation

Using the above steps, you and your students should see improvement in the post-test assessment score report and a percentage of knowledge gained.

Masonry Blueprint

This Blueprint contains the subject matter content of this Career Essentials Assessment.

Note: To fully prepare for **Masonry** SkillsUSA Championships contest, refer to the current year's SkillsUSA Championships Technical Standard, now included with your SkillsUSA Professional Membership. If you need help in accessing this benefit, contact the SkillsUSA Membership Office at 1-800-355-8422.

Standards and Competencies

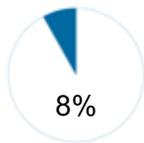
Competencies are weighted throughout the assessment. The percent shown is the weight of the competency. There are 50 questions per assessment.

* Considered essential competencies

** Should be mastered at the journeyman level

All other items are considered supplemental

Practice safe brick and masonry techniques according to industry standards



- ∞ *Choose proper tools and materials
- ∞ *Perform work in a reasonable amount of time as determined by the instructor and/or industry standards
- ∞ **Lay up masonry products in an accurate and professional manner
- ∞ *Load and unload materials as directed
- ∞ *Clean up work areas properly and thoroughly

Model safety standards according to and following OSHA regulations



- ∞ *Demonstrate appropriate safety precautions when performing all tasks
- ∞ *Demonstrate awareness of potential hazards when performing all tasks
- ∞ *Accept responsibility for the safety of other workers
- ∞ *Keep work areas neat and organized
- ∞ *Wear proper safety equipment and clothing
- ∞ Follow prescribed OSHA standards

Utilize hand tools and equipment according to industry standards



- ∞ *Cut masonry safely around others
- ∞ *Place mortar cautiously in the mortar pan or on the mortar board
- ∞ *Keep tools out of the paths of other people working on the job
- ∞ *Handle tools properly

*Identify and utilize basic hand tools used in brick masonry according to industry standards



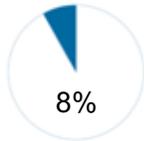
- ∞ *Demonstrate an understanding of the specific uses of each hand tool
- ∞ *Practice the safety rules for each hand tool
- ∞ *Identify quality tools
- ∞ *Store and care for hand tools

Utilize measuring tools according to industry standards



- ∞ Use and maintain a modular ruler and a spacing ruler
- ∞ Set and use a story pole
- ∞ Power tool identification and usage

Identify and use masonry power tools according to industry standards as set forth by the SkillsUSA technical committee



- ∞ *Demonstrate the specific uses of each power tool
- ∞ *Practice the safety rules for each power tool
- ∞ Maintain power tools
- ∞ *Set up power tools correctly

Use equipment according to industry standards as set forth by the SkillsUSA Technical Committee



- ∞ *Identify equipment generally used in brick masonry
- ∞ Correctly use each piece of equipment
- ∞ Store, maintain and repair all equipment
- ∞ Inspect, assemble and disassemble rigging and scaffolding properly

Use masonry levels according to industry standards as set forth by the SkillsUSA technical committee



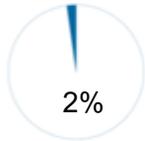
- ∞ **Use a 24" and 48" level for plumbing and leveling
- ∞ *Care for and maintain a level

Possess an appropriate knowledge of the fundamental theories in brick masonry



- ∞ Demonstrate knowledge of trade terminology
 - **Identify terms used in brick masonry
 - **Incorporate trade terminology into oral communication relating to masonry tasks
- ∞ Demonstrate knowledge of basic math
 - *Add, subtract, multiply and divide with whole numbers, decimals and fractions
 - *Figure proportions to mix masonry materials according to specifications
 - *Compute percentages to estimate and determine material requirements, work performed, schedules and costs
 - *Express answers relative to the trade
- ∞ Read blueprints
 - *Read basic drawings and sketches and understand the information contained in them
 - *Know the meanings of basic architectural symbols and abbreviations
 - *Use a builder's level relative to a benchmark

Use materials and methods according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Use brick masonry materials with accuracy
 - *Arrange masonry materials for efficient use
 - *Place mortar pans properly
 - *Temper or shake-up mortar with proper shovels
- ∞ Utilize hod-carrying
 - *Arrange masonry materials for efficient use
 - *Place mortar pans properly
 - *Temper or shake-up mortar with proper shovels
- ∞ Use trowels properly
 - **Manipulate a trowel properly
 - **Cut and roll, and cut and cup mortar to load trowel properly
 - **Spread and furrow mortar properly

Prepare mortar according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Follow correct safety practices when mixing mortar
- ∞ *Proportion mortar ingredients for specific mixes
- ∞ *Mix mortar manually with hoe and mortar box
- ∞ *Mix mortar with a mortar mixer

Demonstrate bonding methods according to industry standards as set forth by the SkillsUSA technical committee



- ∞ *Possess knowledge of different types of bonding used in masonry construction
- ∞ **Lay out bond
- ∞ **Determine coursing

Utilize tool and point joints according to industry standards as set forth by the SkillsUSA technical committee



- ∞ **Use tool concave joints
- ∞ Use a tool rake, weather, V-jointer, grapevine and struck joints
- ∞ Perform cut/rough joints
- ∞ *Tuck-point a wall properly
- ∞ **Brush and touch up a wall

Clean masonry and structural tile according to industry standards as set forth by the SkillsUSA technical committee



- ∞ *Follow correct procedures for keeping masonry work clean
- ∞ *Follow correct procedures in cleaning brick and structural tile
- ∞ *Follow correct procedures for rubbing and tuck pointing concrete block and slag block
- ∞ Clean and tuck-point stonework

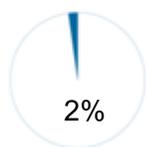
Lay brick and blocks according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Lay straight brick wall
 - *Lay brick at the rate of 75-100 bricks per hour
 - **Attach a line block and line pins to a wall
 - **Set a trig
 - **Lay brick to a line while holding bond
 - **Throw a full head joint

- ∞ Lay straight block wall
 - *Spread bed joints and throw on full head joints for block units
 - *Lay block units to the line
- ∞ Build the brick corner
 - *Lay out a wall in preparation for building a brick corner
 - *Construct a rack-back lead
 - *Construct an outside and inside corner lead (+ or – 11/16")
- ∞ Lay the block corner
 - *Lay out a wall in preparation for building a block corner
 - *Install wire reinforcements in bed joints
 - *Build a block corner to a specified height
- ∞ Lay brick veneer wall
 - Determine type of brick to be used
 - *Bond the wall
 - *Scale each course
 - *Lay brick in mortar to scale
 - *Secure wall with ties at desired intervals
 - *Point and joint the wall
- ∞ Lay brick masonry cavity wall
 - *Determine width of cavity and type of brick to be used
 - *Construct components of the wall in the proper sequence
 - *Spread mortar to achieve the required bond without getting mortar into the cavity
 - **Install wall ties that join the exterior and interior wythes together into a single cavity wall
 - **Install flashings and construct weep holes in a manner that permits effective drainage of moisture from cavity
 - **Construct and maintain the cavity during construction so that the air space provides insulation
- ∞ Lay single Wythe brick (load-bearing wall using units that are a minimum of 5" wide)
 - Determine type of brick to be used
 - *Bond the wall
 - *Scale each course
 - *Lay brick in mortar to scale
 - **Secure wall with ties at desired intervals
 - *Point and joint the wall
- ∞ Lay a brick and block composite wall
 - Determine type of brick and block to be used
 - *Bond the wall
 - *Scale each course
 - *Lay brick and block in mortar to scale
 - *Secure wall with ties at desired intervals
 - *Point and joint the wall

Construct fireplaces and chimneys according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Identify various components of a fireplace
- ∞ Build a fireplace according to plans
- ∞ Identify various components of a chimney
- ∞ Build a one-flue chimney from given plans

Construct arches, columns and piers according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Demonstrate knowledge of architectural features including aesthetic trims, course designs, period and antique applications
- ∞ Construct an arch using given plans
- ∞ Construct a column using given plans
- ∞ Construct a pier using given plans

Lay floors, pavers and stairs according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Lay floors according to given plans
- ∞ Lay pavers according to given plans
- ∞ Lay stairs according to given plans
- ∞ Concrete work

Prepare footers according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Lay out footings properly
- ∞ Place rebar properly
- ∞ Place and rough finish concrete properly

Lay out and establish foundations according to industry standards as set forth by the SkillsUSA technical committee



- ∞ Lay out and establish grades for foundation
- ∞ *Establish corners and lay out concrete block according to a specific bonding plan
- ∞ Lay foundation wall to joist and brick shelf height
- ∞ Waterproof foundation wall
- ∞ *Install flashing, anchor bolts, termite shield and weep holes

Committee Identified Academic Skills

The SkillsUSA national technical committee has identified that the following academic skills are embedded in the masonry training program and assessment:

Math Skills

- Use fractions to solve practical problems
- Use proportions and ratios to solve practical problems
- Simplify numerical expressions
- Solve practical problems involving percents
- Measure angles
- Find surface area and perimeter of two-dimensional objects
- Find volume and surface area of three-dimensional objects
- Make predictions using knowledge of probability
- Make comparisons, predictions, and inferences using graphs and charts
- Solve problems using proportions, formulas and functions
- Find slope of a line
- Find arc length and the area of a sector

Science Skills

None Identified

Language Arts Skills

- Provide information in conversations and in group discussions

Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

Math Standards

- Numbers and operations
- Algebra
- Geometry
- Measurement
- Problem solving
- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School Mathematics. To view high school standards, visit: <http://www.nctm.org/standards/content.aspx?id=16909>.

Science Standards

- Understands the structure and properties of matter
- Understands the sources and properties of energy
- Understands forces and motion
- Understands the nature of scientific inquiry

Source: McREL compendium of national science standards. To view and search the compendium, visit: www.mcrel.org/standards-benchmarks/.

Language Arts Standards

- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics)
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge
- Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information)

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: www.readwritethink.org/standards/index.html.



Review Dates:

Competency Area 1: Practice Safe Brick and Masonry Techniques According to the Industry Standards

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Choose proper tools and materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Perform work in a reasonable amount of time as determined by the instructor and/or industry standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. *Lay up masonry products in an accurate and professional manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Load and unload materials as directed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Cleanup work areas properly and thoroughly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

*Should be mastered at the journeyman level



Review Dates

Competency Area 2: Model Safety Standards According to and Following OSHA Regulations

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Demonstrate appropriate safety precautions when performing all tasks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Demonstrate awareness of potential hazards when performing all tasks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Accept responsibility for the safety of other workers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Keep work areas neat and organized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Wear proper safety equipment and clothing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Follow prescribed OSHA standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



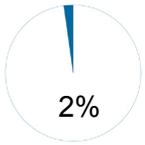
Review Dates:

Competency Area 3: Utilize Hand Tools and Equipment According to Industry Standards

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Cut masonry safely around others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Place mortar cautiously in the mortar pan or on the mortar board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Keep tools out of the paths of other people working on the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Handle tools properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

Competency Area 4: Identify and Use Basic Hand Tools Used in Brick Masonry According to Industry Standards

Knowledge Check

How well do you know how to:

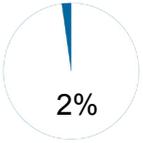
1. Demonstrate an understanding of the specific uses of each hand tool?
2. Practice the safety rules for each hand tool?
3. Identify quality tools?
4. Store and care for hand tools?

Very Well

Somewhat Well

Not Well

Areas I Need To Review:



Review Dates:

Competency Area 5: Use Measuring Tools According to Industry Standards

Knowledge Check

How well do you know how to:

	Very Well	Somewhat Well	Not Well
1. Use and maintain a modular ruler and a spacing ruler?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Set and use a story pole?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Power tool identification and usage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

Competency Area 6: Identify and Use Masonry Power Tools According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Demonstrate the specific uses of each power tool?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Practice the safety rules for each power tool?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Maintain power tools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Set up power tools correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

**Competency Area 7: Use Equipment According to Industry Standards
as set Forth by the SkillsUSA Technical Committee**

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Identify equipment generally used in brick masonry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Correctly use each piece of equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Store, maintain and repair all equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Inspect, assemble and disassemble rigging and scaffolding properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

**Competency Area 8: Use Masonry Levels according to Industry Standards
as Set Forth by the SkillsUSA Technical Committee**

Knowledge Check

How well do you know how to:

- | | Very Well | Somewhat Well | Not Well |
|--|--------------------------|--------------------------|--------------------------|
| 1. *Use a 24" and 48" level for plumbing and leveling? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Care for and maintain a level? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Areas I Need To Review:



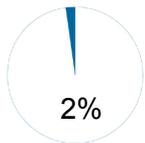
Review Dates:

Competency Area 9: Possess an Appropriate Knowledge of the Fundamental Theories in Brick Masonry

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Demonstrate knowledge of trade terminology			
*Identify terms used in brick masonry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Incorporate trade terminology into oral communication relating to masonry tasks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Demonstrate knowledge of basic math			
Add, subtract, multiply and divide with whole numbers, decimals and fractions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Figure proportions to mix masonry materials according to specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compute percentages to estimate and determine material requirements, work performed, schedules and costs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Express answers relative to the trade?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Read blueprints			
Read basic drawings and sketches and understand the information contained in them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Know the meanings of basic architectural symbols and abbreviations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use a builder's level relative to a benchmark?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

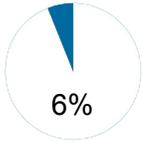
Competency Area 10: Use Materials and Methods According to Industry Standards as set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Use brick masonry materials with accuracy:			
Arrange masonry materials for efficient use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place mortar pans properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temper or shake-up mortar with proper shovels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use hoe-carrying:			
Arrange masonry materials for efficient use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place mortar pans properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temper or shake-up mortar with proper shovels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use trowels properly:			
*Manipulate a trowel properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Cut and roll, and cut and cup mortar to load trowel properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Spread and furrow mortar properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

*Should be mastered at the journeyman level



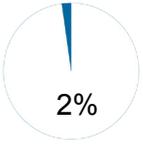
Review Dates:

**Competency Area 11: Prepare Mortar According to Industry Standards
as Set Forth by the SkillsUSA Technical Committee**

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Follow correct safety practices when mixing mortar?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Proportion mortar ingredients for specific mixes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Mix mortar manually with hoe and mortar box?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Mix mortar with a mortar mixer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

Competency Area 12: Demonstrate Bonding Methods According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Identify different types of bonding used in masonry construction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. *Lay out bond?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. *Determine coursing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

*Should be mastered at the journeyman level



Review Dates:

Competency Area 13: Use Tool and Point Joints According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:

	Very Well	Somewhat Well	Not Well
1. *Use tool concave joints?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use a tool rake, weather, V-jointer, grapevine and struck joints?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform cut/rough joints?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Tuck-point a wall properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. *Brush and touch up a wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

*Should be mastered at the journeyman level



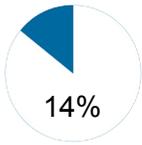
Review Dates:

Competency Area 14: Clean Masonry and Structural Tile According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Follow correct procedures for keeping masonry work clean?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Follow correct procedures in cleaning brick and structural tile?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Follow correct procedures for rubbing and tuck pointing concrete block and slag block?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Clean and tuck-point stonework?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



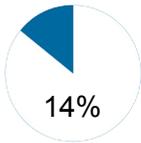
Review Dates:

Competency Area 15: Lay Brick and Blocks According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Lay straight brick wall:			
Lay brick at the rate of 75-100 bricks per hour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Attach a line block and line pins to a wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Set a trig?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Lay brick to a line while holding bond?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Throw a full head joint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Lay straight block wall:			
Spread bed joints and throw on full head joints for block units?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lay block units to the line?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Build the brick corner:			
Lay out a wall in preparation for building a brick corner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construct a rack-back lead?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construct an outside and inside corner lead (+ or - 11/16")?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Lay the block corner:			
Lay out a wall in preparation for building a block corner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install wire reinforcements in bed joints?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Build a block corner to a specified height?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Should be mastered at the journeyman level



Review Dates:

Competency Area 15: Lay Brick and Blocks According to Industry Standards as Set Forth by the SkillsUSA Technical Committee *(continued)*

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
5. Lay brick veneer wall:			
Determine type of brick to be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bond the wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scale each course?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lay brick in mortar to scale?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure wall with ties at desired intervals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Point and joint the wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Lay brick masonry cavity wall:			
Determine width of cavity and type of brick to be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construct components of the wall in the proper sequence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spread mortar to achieve the required bond without getting mortar into the cavity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Install wall ties that join the exterior and interior wythes together into a single cavity wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Install flashings and construct weep holes in a manner that permits effective drainage of moisture from cavity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Construct and maintain the cavity during construction so that the air space provides insulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Should be mastered at the journeyman level



Review Dates:

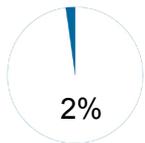
**Competency Area 15: Lay Brick and Blocks According to Industry Standards
as Set Forth by the SkillsUSA Technical Committee *(continued)***

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
7. Lay single Wythe brick (load-bearing wall using units that are a minimum of 5" wide):			
Determine type of brick and block to be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bond the wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scale each course?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lay brick and block in mortar to scale?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure wall with ties at desired intervals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Point and joint the wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

*Should be mastered at the journeyman level



Review Dates:

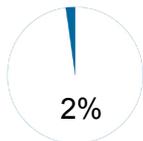
Competency Area 16: Construct Fireplaces and Chimneys According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:

	Very Well	Somewhat Well	Not Well
1. Identify various components of a fireplace?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Build a fireplace according to plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Identify various components of a chimney?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Build a one-flue chimney from given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



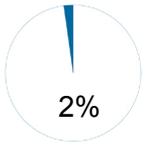
Review Dates:

Competency Area 17: Construct Arches, Columns and Piers According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:	Very Well	Somewhat Well	Not Well
1. Demonstrate knowledge of architectural features including aesthetic trims, course designs, period and antique applications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Construct an arch using given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Construct a column using given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Construct a pier using given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

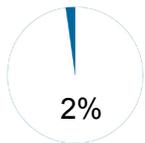
Competency Area 18: Lay Floors, Pavers and Stairs According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:

	Very Well	Somewhat Well	Not Well
1. Lay floors according to given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Lay pavers according to given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Lay stairs according to given plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:



Review Dates:

**Competency Area 19: Prepare Footers According to Industry Standards
as Set Forth by the SkillsUSA Technical Committee**

Knowledge Check

How well do you know how to:

1. Lay out footings properly?

Very Well

Somewhat Well

Not Well

2. Place rebar properly?

3. Place and rough finish concrete properly?

Areas I Need To Review:



Review Dates:

Competency Area 20: Lay Out and Establish Foundations According to Industry Standards as Set Forth by the SkillsUSA Technical Committee

Knowledge Check

How well do you know how to:

	Very Well	Somewhat Well	Not Well
1. Lie out and establish grades for foundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Establish corners and lay out concrete block according to a specific bonding plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Lay foundation wall to joist and brick shelf height?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Waterproof foundation wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Install flashing, anchor bolts, termite shield and weep holes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas I Need To Review:

Helpful Tips and Reminders for Students

Access Directions to the Trade- or Technical-Specific Online 10-question Demo Assessment

Access the Web link www.careeressentials.org/assessments/demo-our-assessments/ with your browser. The sample programmatic questions will help give you an idea of the types of questions on the assessment and how they are generally written.

Test-Taking Reminders

Implementing good study habits is essential for any test or class. Below are basic reminders to better prepare you for life-long learning and workplace success. Incorporate these strategies into your everyday habits.

- Develop a regular study schedule
- Identify a specific location to study
- Always take notes while studying in class or on your own
- Take short breaks during your study session
- Perform “mini-testing” to make sure you understand and comprehend the program concepts
- Join small study groups to help focus on the program content
- If you need special assistance in testing, tell your teacher or counselor so he or she can make accommodations

Student Testing Tips

The most important tip for you is to be prepared mentally and physically for the testing session. Make sure to get plenty of rest and eat healthy. Wear comfortable and appropriate clothing to the testing session. Find out if you can bring items to the testing session, such as a non-programmable calculator, and make sure you have the items ready the night before. Check the website at www.careeressentials.org/wp-content/uploads/2017/07/Permitted-Testing-Tools-Aids.pdf for permitted tools or job aids that can be used during testing. The more organized you are before the testing period, the more relaxed you will be during the actual testing session.

Be relaxed and positive. If you begin to panic during the testing, take some deep breaths to relax, and think positive thoughts.

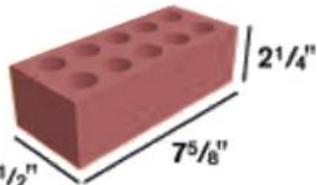
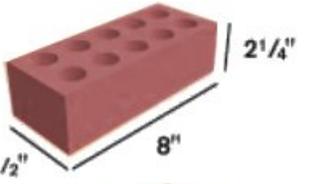
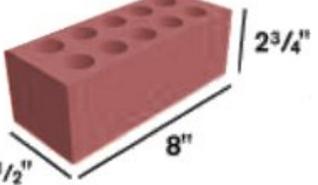
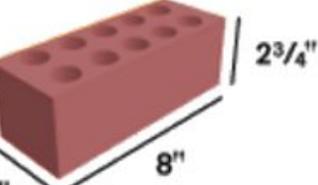
Do not rush through the questions. Read the question and potential answers thoroughly. Make sure you know exactly what the question is asking before answering. If you are unsure, note the question and return to it. Use process of elimination. If you are not sure of the correct answer, study the potential answers and eliminate the ones that you know are not correct.

If all else fails – *guess*. After you have exhausted all options, take your best guess at the correct answer. If you have studied the content area, you may intuitively know the correct answer. The Career Essentials: Assessments does not penalize you for guessing, and you may guess correctly!

Sample Assessment Questions

Question 1

Which of the following images depicts a standard brick?
Choose one answer.

- A)  $3\frac{1}{2}''$ $7\frac{5}{8}''$ $2\frac{1}{4}''$
- B)  $3\frac{1}{2}''$ $8''$ $2\frac{1}{4}''$
- C)  $3\frac{1}{2}''$ $8''$ $2\frac{3}{4}''$
- D)  $3''$ $8''$ $2\frac{3}{4}''$

Answer: B

Question 2

At what temperature do hot weather construction methods of handling mortar go into effect?



Choose one answer.

- A) 38°F
B) 80°F
C) 95°F
D) 100°F

Answer: D

Question 3

How many modular bricks are found in the length of a 10' wall?

Choose one answer.

- A) 10 bricks
- B) 12 bricks
- C) 15 bricks
- D) 16 bricks

Answer: C

Question 4

Which of the following is a preferred method to check for square inside dimension?

Choose one answer.

- A) Diagonal method
- B) Horizontal method
- C) Rise and run method
- D) Vertical method

Answer: A

Question 5

To protect a trowel from rust, you should:



Choose one answer.

- A) Lightly coat it with oil.
- B) Brush the trowel off with a wire brush.
- C) Wash it with soapy water.
- D) Wrap it with a damp cloth.

Answer: A

Question 6

The mason inserts the vibrator into each core to consolidate the grout and to:
Choose one answer.

- A) Remove air pockets.
- B) Increase tensile strength.
- C) Decrease tensile strength.
- D) Allow for reinforcement.

Answer: A

Question 7

The height of a block is $7 \frac{5}{8}$ ". If the joints are $\frac{3}{8}$ " apiece, what is the height at the top of the fourth block?



Choose one answer.

- A) 28"
- B) 32"
- C) $30 \frac{7}{8}$ "
- D) $34 \frac{1}{8}$ "

Answer: B

1/31/14

Resources

Additional Resources

Below are resources that will be helpful in preparing for the Assessments which were created based on industry standards nationwide. Use the Career Essentials: Assessments Blueprint as a guideline for competencies tested. Use the resources below to find curriculum or additional study guides for industry standards.

Masonry Resources:

www.careeressentials.org/assessments/assessment-resources/