

CT.MAS Masonry

Essential Discipline Goals

- Develop and apply the technical competency and related academic skills that allow for economic independence and career satisfaction.
- Acquire the essential learnings and values that foster continued education throughout life.
- Demonstrate the ability to communicate, solve problems, work individually and in teams and apply information effectively.
- Develop technological literacy and the ability to adapt to future change.

Standards

Indicators

CT.MAS.05 Students will define masonry as a trade.

CT.MAS.05.01 Students will explain the traditional aspects of the masonry trade

CT.MAS.05.02 Students will define the job relationships and duties of the student, journeyman, foreman, superintendent and contractor

CT.MAS.05.03 Students will explain the Associated Builders and Contractors Masonry Apprenticeship Program.

CT.MAS.10 Students will perform basic math to calculate and solve problems as it relates to the masonry trade.

CT.MAS.10.01 Students will add, subtract, multiply and divide

CT.MAS.10.02 Students will convert measurements into inches, feet and yards

CT.MAS.10.03 Students will use a calculator with accuracy

CT.MAS.10.04 Students will solve practical problems in trade calculations

CT.MAS.15 Students will demonstrate the proper use of hand tools.

CT.MAS.15.01 Students will identify the basic tools of the masonry trade

CT.MAS.15.02 Students will demonstrate the use of the tools of the masonry trade

CT.MAS.15.03 Students will select hand tools for quality, service and durability

CT.MAS.15.04 Students will demonstrate the proper methods of caring for mason's tools

CT.MAS.20 Students will demonstrate the proper use of power tools.

CT.MAS.20.01 Students will identify the power tools used in the masonry trade

CT.MAS.20.02 Students will discuss the safe operation of designated power tools

CT.MAS.20.03 Students will demonstrate the safe operation of a masonry saw, mortar mixer and drills

CT.MAS.25 Students will erect scaffolding to conform to safety standards.

CT.MAS.25.01 Students will explain the rules for safety erecting tubular sectional scaffolding

CT.MAS.25.02 Students will describe and compare/contrast the three main types of scaffolding

CT.MAS.30 Students will use safety rules at all times.

CT.MAS.30.01 Students will explain the purpose of safety rules

CT.MAS.30.02 Students will describe (conform to) the safe and correct dress worn on the job

CT.MAS.30.03 Students will demonstrate the proper measures for using materials, tools and equipment safety

CT.MAS.30.04 Students will explain the Occupational Safety and Health Act

CT.MAS.35 Students will interpret a plan and identify the materials and process to create a specified wall type.

CT.MAS.35.01 Students will define the terms necessary for describing the basic wall type

CT.MAS.35.02 Students will list the six basic wall types

CT.MAS.35.03 Students will analyze the structural principles associated with each of the six basic wall types

CT.MAS.40 Students will demonstrate the ability to use drawings and specifications.

CT.MAS.40.01 Students will identify the basic scales and dimensions

CT.MAS.40.02 Students will identify the basic types of lines

CT.MAS.40.03 Students will describe the various parts of “working drawings” and the symbols and abbreviations which are used

CT.MAS.45 Students will demonstrate the ability to mix mortar.

CT.MAS.45.01 Students will explain the function of mortar

CT.MAS.45.02 Students will identify the components of mortar

CT.MAS.45.03 Students will demonstrate the proper techniques for a masonry job layout

CT.MAS.45.04 Students will store material properly

CT.MAS.45.05 Students will calculate the correct proportions for mixing mortar

CT.MAS.45.06 Students will temper mortar

CT.MAS.45.07 Students will hand mix mortar

CT.MAS.45.08 Students will power mix mortar

CT.MAS.50 Students will apply basic laying techniques to block.

CT.MAS.50.01 Explain factors to be considered when laying out and setting up job site

CT.MAS.50.02 Demonstrate dry bonding and explain its importance

CT.MAS.50.03 Check the job layout for accuracy

CT.MAS.50.04 Describe the appropriate steps in picking up, handling and positioning masonry materials

CT.MAS.50.05 Discuss and demonstrate the skills needed for laying block and brick to the line

CT.MAS.50.06 Accurately place a closure block when masons are working from opposite ends towards the middle of the same wall

CT.MAS.50.07 Describe the items to consider in maintaining patterned bonds at corners

CT.MAS.50.08 Cut a block using a mason’s hammer and chisel

CT.MAS.50.09 Lay up a corner and lead

CT.MAS.50.10 Demonstrate how to form a variety of mortar joints

CT.MAS.50.11 Describe procedures for keeping masonry units clean during construction

CT.MAS.55 Students will apply basic laying techniques to brick.

CT.MAS.55.01 Describe the characteristics of brick

CT.MAS.55.02 Explain how a brick is manufactured

CT.MAS.55.03 Itemize and describe the main classification types of brick

CT.MAS.55.04 Stock and set up a work site

CT.MAS.55.05 Accurately establish wall lines with a chalk line and square

CT.MAS.55.06 Lay a first course using a dry bond

CT.MAS.55.07 Select proper tools to perform a give task

CT.MAS.55.08 Lay brick to the prescribed accuracy to the line

CT.MAS.55.09 Use work patterns that will minimize movement and fatigue

CT.MAS.55.10 Determine when to strike the joints

CT.MAS.55.11 Point old and new masonry

CT.MAS.55.12 Follow the proper procedure for setting with a line

CT.MAS.55.13 Describe the six positions of brick in a wall

CT.MAS.55.14 Compare and contrast the three major methods of structure bonding

CT.MAS.55.15 Explain the importance of corners and leads