

# Massachusetts Technical Teacher Testing Program Mason and Tile Setting Content Outline

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## Written and Performance Exam General Overview

- The intent of this exam is to assess your ability to teach the skills found in the Massachusetts Technical Education Framework.
- This exam is aligned to the frameworks which can be accessed [here](#).
- Many questions and tasks require a synthesis of knowledge based on experience in the field and may not be found in any book.
- Candidates are encouraged to prepare for their exam by reviewing textbooks and reference material which has been listed as part of this exam outline. These resources can be found using online search tools, online vendors, and websites.
- Contact the Technical Teacher Testing Office if you need further assistance in locating resources listed in the exam outline.
- Use this exam outline and the Massachusetts Technical Education Framework to focus your preparation for the exam.

## Written Exam

- Number of Questions: 100
- Administration Time: 3 hours
- Administration Method: Remote Proctoring Online Session

## Written Exam Content Coverage

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**13% Fundamentals of Health and Safety**

**10% Fundamentals of Masonry**

- Read and Interpret Prints
- Set-up and Layout

**20% Brick and Block Laying**

- Bonds, Leads, and Corners
- Masonry Walls and Reinforcement

**2% Scaffolding**

**10% Brick Paving**

**10% Tile Setting Procedures**

**5% Chimneys, Fireplaces, Arches, and Ornamental Masonry**

**10% Hand and Power Tools**

**5%**     ***Finishing, Restoration, Reinforcement, and Waterproofing***

**10%**    ***Masonry Measurements and Mathematics***

**5%**     ***Concrete and Mortar Applications***

### Written Exam Reference Materials (Reference Current Edition)

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- **Masonry Skills** by Richard T. Kreh, Sr. (Delmar)
- **Concrete Technology** by George White (Delmar)
- **Concrete Form Construction** by Cairl Moore (Delmar)

### Materials Needed for the Written Exam

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- A four-function calculator is included in the online testing system. No other calculators are permitted.
- Scrap paper and pencil/pen are permitted.

### Written Exam Sample Items

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Each question on the exam consists of one incomplete sentence or question followed by four choices. Some items reference an image or diagram. A few sample items are included below; the correct answer is designated with an asterisk (\*).

Flue lining is made of a very strong material called:

- a.     gypsum.
- \*b.    terra-cotta.
- c.     concrete.
- d.     asbestos.

The normal steps to align brick in a corner lead with a mason's level are:

- a.     plumb, straight edge, level.
- b.     plumb, level, straight edge.
- \*c.    level, plumb, straight edge.
- d.     straight edge, plumb, level.

## Performance Exam

- Administration Time: 5 hours
- Administration Method: Onsite at an approved Teacher Testing Location

### Performance Exam Content Coverage

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**35% Block Work**

- Layout Bond
- Mixing Mortar
- Tool Usage
- Finished Product

**12% Tile Setting**

- Layout Bond
- Adhesive Application
- Tile Installation
- Finished Project

**35% Brick Work**

- Layout Bond
- Mixing Mortar
- Tool Usage
- Finished Product

**11% Tile Grouting**

- Mixing Grout
- Applying Grout
- Clean Tile Surface
- Finished Product

**7% Safety and Work Habits**

### Materials Required for the Performance Exam (Candidate Must Supply)

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- Face mask (cotton face covering or respirator which fully cover the nose and mouth)
- Eye Protection
- Industry-Approved Work Clothes and Boots/Shoes
- Trowel (Brick)
- Brick Hammer
- 2' Level
- 4' Level
- Convex Jointer
- Brick Set
- Rubber Float
- Pencil or Marking Device
- Rule – Brick Spacing and Modular
- Mason Line (12')
- Line Blocks
- Square (2')
- Brush
- Trigs (2)
- ½" Flat Jointer
- Toolbox or Tool Bag
- Tile Sponge
- Chalk Line
- ¼" V-Notched Trowel
- Line Pins (2)

**Note:** No books or notes will be allowed. Cell phones are prohibited during the exam administration.

## Onsite Performance Exam Requirements

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- Candidate must practice social distancing and wear the appropriate face covering that covers the nose and mouth while at the exam site.
- Testing sites may have individual requirements based on location and the current guidance from the Center for Disease Control and Prevention (CDC).

## Performance Exam Reference Materials (Reference Current Edition)

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- **Safety Orientation** by NCCER (Pearson Prentice Hall) [www.crafttraining.com](http://www.crafttraining.com)
- **OSHA Regulations** [www.osha.gov](http://www.osha.gov)
  - [1910.1200 - Hazard Communication](#)
  - [1910 Subpart I - Personal Protective Equipment](#)