**Lesson Information**

|  |
| --- |
| Lesson: (3 of 3) Installation Technique Length: 90 minutes  Unit: (2 of 3) Basic Technique  Course: Masonry |

**Content Assumptions**

|  |
| --- |
| Prior to this class, students have taken math and construction drawing courses. |

**Essential Questions**

|  |
| --- |
| 1. How are masonry structures built? |

**Objectives Assessments**

|  |  |
| --- | --- |
| After completing this lesson, students will be able to:   1. Demonstrate their ability to plan and estimate materials for a masonry construction. 2. Explain the processes of installing various kinds of masonry units. | 1. Construction drawing with estimates and process write-up — rubric 2. Construction drawing with estimates and process write-up — rubric |

**Activities/Instruction**

|  |
| --- |
| **Show and Tell** (30 minutes)  Using visual aids and samples as desired, Instructor explains the processes of building vertical and horizontal masonry structures, including:   * Applicable terms (e.g., dry bonds, corbeling, single- and double-wythe walls, bed joints, furrows, etc.) * How brick and block are cut * How a wall is set up * How steps, patios, and decks are laid out and built * How chimneys are built * How walkways are laid out and built   Students ask questions as the Instructor teaches, creating a classroom dialogue.  **Plan…** (20 minutes)  Instructor divides students into groups of three. In each group, one student is to draw plans for a simple walled structure, one student is to draw plans for a chimney, and one student is to draw plans for a patio or deck.  **…Estimate…** (20 minutes)  Instructor directs students to trade drawings within their groups. Each student is to estimate materials for the drawing s/he receives (not his/her own).  **…and Process** (20 minutes)  Instructor directs students to trade drawings again, so that each student has a drawing s/he hasn’t drawn or estimated materials for. Each student is then to write the steps for the installation process to go along with the structure in the drawing. |

**Materials**

|  |
| --- |
| For Instructor:   * [CONSTRUCTION DRAWING – ESTIMATE – WRITE-UP RUBRIC] |