

WGSD Curriculum
Industrial Technology Department

Course: Home Maintenance

Grade Level: 10-12

LG 3 Framing

High Priority Standards

MoDese Career Profiles: Building Maintenance

Wall and Ceiling Framing

1. Identify the components of a wall and ceiling layout.
2. Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition T's, bracing, and firestops.

Learning Goal	Proficiency Scale
<p>Students will be able to build a wall.</p>	<p>Level 4: Student demonstrates an in-depth inference or advanced application or innovates with the learning goal.</p> <p>Level 3: Student demonstrates mastery with the learning goal as evidenced by:</p> <ul style="list-style-type: none">• Describing how a wood frame wall is constructed including components such as plates, corner posts, door and window openings, bracing, partition T's, and firestops.• Laying out and assembling exterior walls for a frame building.• Explaining the use of metal studs in wall framing. <p>Level 2: Student demonstrates he/she is nearing proficiency by:</p> <ul style="list-style-type: none">• Recognizing and recalling specific vocabulary, such as: plates, corner posts, door and window openings, bracing, partition T, firestop• Performing processes such as:<ul style="list-style-type: none">○ Identifying sheathing materials.

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- Identifying fasteners for a variety of materials.

Level 1: Student demonstrates a limited understanding or skill with the learning goal.

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LG 4 Drywall

High Priority Standards

MoDese Career Profiles: Carpentry

Drywall Installation

1. Identify the different types of drywall and their uses.
2. Select the type and thickness of drywall required for specific installations.
3. Select fasteners for drywall installation.
4. Explain the fastener schedules for different types of drywall installations.
5. Perform single-layer and multi-layer drywall installations using different types of fastening systems, including: • Nails • Drywall screws • Adhesives

Proficiency Scale

Drywall Installation

Student will be able to install and repair walls.

Level 4: Student demonstrates an in-depth inference or advanced application or innovates with the learning goal.

Level 3: Student demonstrates mastery with the learning goal as evidenced by:

- Explaining how to measure, cut, and install drywall on a wood stud frame.
- Applying single layer and multilayer installations for a variety of situations such as wet areas, soundproofing, repairs, and living area walls.

Level 2: Student demonstrates he/she is nearing proficiency by:

- Recognizing and recalling specific vocabulary, such as: 1/4", 1/2", 5/8", gypsum, sheetrock, taping, mudding, drywall screw, liquid nails, sound proof, green board, patch.

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- Performing processes such as:
 - Identifying the best type of drywall for the job.
 - Choosing fasteners for the material and application.

Level 1: Student demonstrates a limited understanding or skill with the learning goal.

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LG 5 Roofing

High Priority Standards

MoDese Career Profiles: Carpentry

Roof Framing

1. Understand the terms associated with roof framing.
2. Identify the roof framing members used in gable and hip roofs.
4. Identify the various types of trusses used in roof framing.
5. Use a rafter framing square, speed square, and calculator in laying out a roof.
6. Identify various types of sheathing used in roof construction.

Learning Goal

Students will be able to frame and finish a roof.

Proficiency Scale

Level 4: Student demonstrates an in-depth inference or advanced application or innovates with the learning goal.

Level 3: Student demonstrates mastery with the learning goal as evidenced by:

- Measuring, cutting and fitting various roof structures including trusses and rafters.
- Applying cutting and installation techniques to roof flashing and shingles.

Level 2: Student demonstrates he/she is nearing proficiency by:

- Recognizing and recalling specific vocabulary, such as: shingles, roll roofing, shakes, tiles, metal roof, membrane, valley, hip, ridge cap.
- Performing processes such as:
 - Identifying tools and processes used to work on roofs.
 - Describing how to make a roof watertight.

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	Level 1: Student demonstrates a limited understanding or skill with the learning goal.
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LG 6 Hand and Power tools

High Priority Standards

MoDese Career Profiles: Carpentry

Introduction to Hand Tools

1. Recognize and identify some of the basic hand tools and their proper uses in the construction trade.
2. Visually inspect hand tools to determine if they are safe to use.
3. Safely use hand tools.

Introduction to Power Tools

1. Identify power tools commonly used in the construction trades.
2. Use power tools safely.
3. Explain how to maintain power tools properly.

Learning Goal	Proficiency Scale
<p>Student will be able to use and maintain hand and power tools.</p>	<p>Level 4: Student demonstrates an in-depth inference or advanced application or innovates with the learning goal.</p> <p>Level 3: Student demonstrates mastery with the learning goal as evidenced by:</p> <ul style="list-style-type: none">• Explaining maintenance of hand and power tools to ensure safe operation.• Applying techniques used in class to authentic repair situations. <p>Level 2: Student demonstrates he/she is nearing proficiency by:</p> <ul style="list-style-type: none">• Recognizing and recalling specific vocabulary, such as: hammer, screwdriver, hand saw, circle saw, drill, drill bits.• Performing processes such as:

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- Choosing the best tool for the job.
- Identifying basic hand tools and their proper use.
- Identifying basic power tools and their proper use.

Level 1: Student demonstrates a limited understanding or skill with the learning goal.

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LG 7 Concrete

High Priority Standards

MoDese Career Profiles: Carpentry

Introduction To Concrete, Reinforcing Materials, And Forms

1. Identify the properties of cement.
2. Describe the composition of concrete
3. Perform volume estimates for concrete quantity requirements.
4. Identify types of concrete reinforcement materials and describe their uses.
5. Identify various types of footings and explain their uses.
6. Identify the parts of various types of forms.
7. Explain the safety procedures associated with the construction and use of concrete forms.
8. Erect, plumb, and brace a simple concrete form with reinforcement.

Learning Goal

Students will be able to construct with
concrete.

Proficiency Scale

Level 4: Student demonstrates an in-depth inference or advanced application or innovates with the learning goal.

Level 3: Student demonstrates mastery with the learning goal as evidenced by:

- Explaining the difference between concrete and cement and the best application for each.
- Estimating how much concrete is needed for a project.
- Applying concrete construction skills to an authentic project, such as step repair, sidewalk installation, or basement repairs.

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	<p>Level 2: Student demonstrates he/she is nearing proficiency by:</p> <ul style="list-style-type: none">• Recognizing and recalling specific vocabulary, such as: footing, form, concrete, cement, volume, square yard, reinforcement.• Performing processes such as:<ul style="list-style-type: none">○ Identifying different forms of concrete and cement.○ Identifying different types of footings and braces and their uses. <p>Level 1: Student demonstrates a limited understanding or skill with the learning goal.</p>
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