

Unit: Framing Project Book 3 Commercial, Unit 3

Title: Metal Framing Terminology and Tools

Skill(s) and Knowledge: Identify and describe metal framing components for partitions, use and maintenance of metal framing tools, and wall framing members. Identify rough opening sizes on a schedule, headers, corners, and soffits. Metal framing safety, such as cut resistant gloves.

Tasks: Students will be able to: . Layout and construct metal stud partitions. Understand wall system terms identify and use metal framing tools.

Performance objective:

Students will perform several Lead-up exercises to gain familiarity with metal framing components and framing concepts.

Tools, supplies and reference materials:

Aviation snips, Locking C-Clamp, Cut resistant gloves, Laser level(optional), chalk line, plumb bob, framing square, screw gun, framing screws, 2 x 4 metal studs and track. Career Connections Project Book 3 pages: 98- 166.

Methods of instruction: Demonstration on how to install framing members, including cutting metal studs and track, and clamping and screwgun techniques. Lecture on how to calculate rough openings. Field trip to a local jobsite or the Union Training Hall to see the task performed by professional carpenters.

Estimated time: 30 hrs. **Number of students:** 10

Task analysis or activities:

Students will practice using aviation snips to cut metal studs, layout walls and erect partition walls, ceilings and soffit..

Evaluation: Students will be graded on their use of time, safety methods, quality of work, cleaning and organization of their work area, interaction with other students, and vocational employability skills grading rubric. Manipulative skills assessments and written evaluations.

Performance Notes:

Vocational Frameworks References

- 2.A.01.05 Identify and apply OSHA safety regulations.
- 2.E.01.01 Demonstrate use and maintenance of layout, marking and measuring tools.
- 2.J.01.01 Frame metal stud partitions.

English/Strand 3 Frameworks References:

- 2.B.01-06 Determine the meaning of symbols, key terms, and other domain-specific words and phrases in a technical context.

Frameworks References: Math

- 2.B.01 Use Trigonometric ratios and Pythagorean Theorem to solve right triangles in applied problems.

Common Core References:

- Read and listen critically for information understanding and enjoyment
- Set goals and achieve them by organizing time, workspace, and resources effectively
- Work both independently and in groups

SCANS references:

Foundation Skills:

1. Basic skills— reading, writing, mathematics, speaking, and listening.
2. Thinking Skills-- thinking creatively, making decisions, solving problems, visualizing, knowing how to learn, and reasoning
3. Personal qualities--individual responsibility, self-esteem, sociability, self management, and integrity

Workplace Competencies

1. Resources--allocating time, money, material, space, and staff.
2. Interpersonal skills--working in teams, teaching others, serving customers, leading negotiating, and working well with culturally diverse populations.
3. Information--acquiring and evaluating data, organizing and maintaining files, interpreting & communicating, and using computer to process information
4. Systems--understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems.
5. Technology--selecting equipment and tools, applying technology to specific tasks, maintaining and troubleshooting technologies.