

Anoka-Hennepin Secondary Curriculum Unit Plan

Department:	Career Technical Education	Course:	Construction Careers: Building Trades	Unit 3 Title:	Rafters and Stair Framing	Grade Level(s):	11-12
Assessed Trimester:		Pacing:	10 Days	Date Created:		Last Revision Date:	

Course Understandings: <i>Students will understand that:</i> <ul style="list-style-type: none">The field of construction trades and its area of specialization.Organizational skill, problem solving, critical thinking, and assessment skills are the essential tools used in construction trades.Math, in its various forms, are foundational to the construction trades.Attention to detail, resulting in a safe work environment and a high quality product, is the driving force within construction trades.

DESIRED RESULTS (Stage 1) - WHAT WE WANT STUDENT TO KNOW AND BE ABLE TO DO?

Established Goals	
Minnesota State/Local/Technology Standard(s) addressed: <ul style="list-style-type: none">Professional Attributes - A1 Displays high standards for attendance and punctuality, A2 Displays a positive attitude, A3 Displays appropriate behavior, A4 Works effectively as a team member, A5 Applies listening skills, A6 Applies speaking skillsFundamental Carpentry Skills - E9 Uses squares, measuring tapes or rules to measure materials or distances, E11 Performs mathematical calculationsHand Tools – F1 Identifies and correctly uses hammers, F2 Identifies and correctly uses handsawsPower Tools – G1 Identifies and correctly uses power drills, G2 Identifies and correctly uses power saws, G3 Identifies and correctly uses sanders, G7 Identifies and correctly uses pneumatic nailerReading Plans – H4 Reads and interprets elevation view drawingsRough Framing – L19 Constructs a frame roof including hips, valleys, commons and jack rafters, L21 Lays out rafter locations on a top plate, L22 Cuts and installs raftersAssembling and Constructing Stairs – P2 Lays out and cuts stringers, P3 Determines the number and sizes of risers and treads requires for a stairway, P5 Constructs open riser stairs	
Transfer	
Students will be able to independently use their learning to: (product, high order reasoning) <ul style="list-style-type: none">	
Meaning	
Unit Understanding(s): Students will understand that: <ul style="list-style-type: none">The application of basic construction concepts is foundational to all types of construction projectsMastery of basic construction concepts is required to be successful in construction tradesMastery of basic construction concepts is required to be able to work in conjunction with other carpentersBasic construction concepts apply to both new construction and remodeling projects	Essential Question(s): Students will keep considering: <ul style="list-style-type: none">What types of rafters are there?How do you construct a rafter?What is the difference between a stairway and a stairwell?How do you layout and cut out a stair stringer?
Acquisition	
Knowledge - Students will: <ul style="list-style-type: none">Construction terminology used in rafter constructionConstruction terminology used in stairway/stairwell constructionProcedures for installing a stair case	Skills - Students will: <ul style="list-style-type: none">Apply basic construction concepts to rafter constructionApply basic construction concepts to stairway/stairwell constructionDescribe the function and installation procedures for different types of sheathing

<ul style="list-style-type: none">Procedures for installing rafters Reasoning - Students will: <ul style="list-style-type: none">	<ul style="list-style-type: none">Estimate cost of materials for rafter constructionEstimate cost of materials for a stairway/stairwell project

Common Misunderstandings <ul style="list-style-type: none">Inability to do mathIlliteracy in either or both reading and writingHow to do a layoutDeciding on the correct tools for the job	Essential new vocabulary <ul style="list-style-type: none">
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