

Anoka-Hennepin Secondary Curriculum Unit Plan

Department:	Career Technical Education	Course:	Construction Careers: Building Trades	Unit 6 Title:	Plumbing	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 skillsTools & Equipment (Plumbing Standards) E1 Identifies and uses basic hand tools and accessories, E2 Identifies and uses basic power toolsPiping Operations (Plumbing Standards) F2 Uses fasteners, F6 Performs plastic pipe operationsPlumbing (Plumbing Standards) H1. Identifies basic plumbing work, H2. Identifies basic plumbing tools, H17. Identifies and installs DWV (drainage, waste and vent) linesFundamental 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 drawingsEstimating Materials – J1 Estimates rough framing materials, J3 Estimates roofing materials, J11 Estimates sidingRough Framing – L3 Installs sill plate, L6 Lays out and constructs floor assembly, L8 Installs floor joists, L9 Installs subflooring, L11 Constructs and erects wall sections, L13 Cuts studs, trimmers, cripples, and headers to dimensions, L21 Lays out rafter locations on a top plate, L22 Cuts and installs rafters, L23 Applies roof sheathingInstalling Exterior Finishes – N1 Installs air and vapor barrier, N2 Installs box cornices, N3 Installs rake cornices, N4 Installs wood or vinyl fascia, N5 Installs wood or vinyl soffits	
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 is plumbing?Why are there plumbing codes?How do you work with plumbing safely?What tools do you use in plumbing?
Acquisition	

Knowledge - Students will: <ul style="list-style-type: none">• Terminology used in plumbing work• Procedures used in plumbing projects• Plumbing codes and safety protocol• Correct use of plumbing tools Reasoning - Students will: <ul style="list-style-type: none">• 	Skills - Students will: <ul style="list-style-type: none">• Apply basic construction concepts to plumbing projects• Demonstrate plumbing tool safety• Demonstrate safety in plumbing projects (e.g. solvents, underground work, etc.)• Explain the reason for plumbing codes• Estimate cost of materials for an plumbing project• Interpret a plan to complete a plumbing project

Common Misunderstandings <ul style="list-style-type: none">• Inability to do math• Illiteracy in either or both reading and writing• How to read a plan and or directions• Deciding on the correct tools for the job• Construction codes for plumbing	Essential new vocabulary <ul style="list-style-type: none">•
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