Anoka-Hennepin Secondary Curriculum Unit Plan

Department:	Career Technical Education	Course:	Construction Careers: Building Trades	Unit 2 Title:	Planning, Construction and Installation	Grade Level(s):	11-12
Assessed Trimester:		Pacing:	10 Days	Date Created:		Last Revision Date:	

Course Understandings: *Students will understand that:*

- 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:

- **Professional Attributes** - A2 Displays a positive attitude, A3 Displays appropriate behavior, A4 Works effectively as a team member, A5 Applies listening skills, A6 Applies speaking skills
- **Fundamental Carpentry Skills** - E9 Uses squares, measuring tapes or rules to measure materials or distances, E11 Performs mathematical calculations
- **Hand Tools** – F1 Identifies and correctly uses hammers, F2 Identifies and correctly uses handsaws
- **Power 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 nailer
- **Reading Plans** – H4 Reads and interprets elevation view drawings
- **Estimating Materials** – J1 Estimates rough framing materials, J3 Estimates roofing materials, J11 Estimates siding
- **Foundations and Forms** – K9 Installs anchor bolts in concrete block, K13 Screeds concrete
- **Rough Framing** – L3 Installs sill plate, L6 Lays out and constructs floor assembly, L7 Installs bridging, L8 Installs floor joists, L9 Installs subflooring, L11 Constructs and erects wall sections, L12 Lays out wall and partition location, L13 Cuts studs, trimmers, cripples, and headers to dimensions, L14 Assembles corners, partition Ts and headers, L16 Frames door opening, L17 Frames window opening, 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 rafters, L23 Applies roof sheathing
- **Installing Exterior Finishes** – N2 Installs box cornices, N3 Installs rake cornices, N5 Installs wood or vinyl fascia, N8 Installs outside corner – wood, shingle or siding, N9 Installs selected types of wood siding, N12 Cases exterior opening, N13 Installs pre-hung window, N15 Installs a pre-hung exterior door
- **Assembling 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)

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Meaning

Unit Understanding(s):	Essential Question(s):
Students will understand that: ● The application of basic construction concepts is foundational to all types of construction projects ● Mastery of basic construction concepts is required to be successful in construction trades ● Mastery of basic construction concepts is required to be able to work in conjunction with other carpenters ● Basic construction concepts apply to both new construction and remodeling projects	**Students will keep considering:** ● How do you apply basic construction concepts to window or door rough openings? ● What is the difference between a window and door rough opening? ● How do you apply sheathing? ● How does power tool safety change with the job requirements? ● What is a reciprocating saw?

Acquisition

Knowledge - Students will:

- Construction terminology used in window rough opening
- Construction terminology used in door rough opening
- Safety and usage procedures for the reciprocating saw
- Procedures for different types of sheathing

Reasoning - Students will:

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Skills - Students will:

- Apply basic construction concepts to rough in a window opening
- Apply basic construction concepts to rough in a door opening
- Safely use a reciprocating saw
- Describe the function and installation procedures for different types of sheathing
- Estimate the cost for a window or door roughing project
- Estimate the cost for a sheathing project

Common Misunderstandings

- Inability to do math
- Illiteracy in either or both reading and writing
- Where to start roughing in a window or door opening
- Deciding on the correct tools for the job

Essential new vocabulary

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