

Identifier	Poplar - Master - Wood		Introduced	Completed
M W 1	SAFETY AND EQUIPMENT			
M W 1.1.01	General Rules	Design a safety-improvement plan.		
M W 1.1.02	General Rules	Administer simulated basic first aid procedures for treating cuts, burns, and electrical shock.		
M W 1.1.03	General Rules	Obtain first aid/CPR certification.		
M W 1.1.04	General Rules	Obtain OSHA 10 certification.		
M W 1.2.01	Tools	Perform advanced maintenance on hand and power tools.		
M W 1.2.02	Tools	Earn certification for specialized equipment.		
M W 2	MATHEMATICS			
M W 2.1.01	Use	Estimate labor for all aspects of furniture and cabinetmaking construction using industry tables.		
M W 2.1.02	Use	Lay out corners using the Pythagorean theorem (3-4-5 Rule) or (6-8-10 Rule).		
M W 2.1.03	Use	Use construction calculator to solve project-related problems.		
M W 3	PLANNING AND DESIGN			
M W 3.1.01	Elements of Design	Identify and describe Americans with Disabilities Act (ADA) requirements.		
M W 3.2.01	Styles	Research and design period furniture.		
M W 3.3.01	Drafting/ Blueprints	Use computer software to design furniture/cabinetry.		
M W 3.3.02	Drafting/ Blueprints	Create a kitchen cabinet layout.		
M W 3.4.01	Bill of Materials	Develop a bill of materials using a computer-based program.		
M W 3.5.01	Estimating	Develop a total cost estimate for kitchen cabinetry in a residence.		
M W 3.6.01	Project Planning	Develop a plan of procedures for a complete kitchen.		
M W 4	TOOL USAGE AND SELECTION			
M W 4.1.01	Measurement/ Layout	Demonstrate how to use digital and electronic measurement and layout tools.		
M W 4.1.02	Measurement/ Layout	Demonstrate and use mechanical precision measuring equipment to the nearest .001 inch.		
M W 4.2.01	Cutting	Maintain and sharpen cutting hand tools.		
M W 4.2.02	Cutting	Hand-cut a dovetail.		
M W 4.3.01	Striking	Use specific striking tools to create mortise and tenon joints.		
M W 4.4.01	Boring	Students will hand bore using a doweling jig.		
M W 4.5.01	Shaping	Carve an identifiable object using hand-shaping tools.		
M W 4.5.02	Shaping	Square a board using hand-shaping tools.		
M W 4.6.01	Clamping	Form curved shapes using vacuum bag clamping.		
M W 5	POWER TOOLS			
M W 5.1.01	Portable	Perform advanced maintenance on portable power tools.		
M W 5.1.02	Portable	Obtain the OSHA CareerSafe certification.		
M W 5.2.01	Stationary	Perform advanced maintenance on stationary power tools.		
M W 5.2.02	Stationary	Obtain the OSHA CareerSafe certification.		
M W 6	JOINERY, FASTENERS, ADHESIVES			
M W 6.1.01	Metallic	Design a project requiring the use of specialized metallic fasteners.		
M W 6.2.01	Dowels/ Biscuits	Design a project using both dowels and biscuits.		
M W 6.2.02	Dowels/ Biscuits	Conduct a strength test comparing dowel and biscuit joinery.		
M W 6.3.01	Adhesives	Develop a research paper describing the uses of adhesives in industrial processes.		
M W 6.4.01	Joints	Design and conduct a test to measure the strengths and weaknesses of various wood joints.		
M W 6.4.02	Joints	Design and construct jigs and fixtures for specialty applications.		
M W 7	MATERIALS			
M W 7.1.01	Hardwoods/ Softwoods	Research and present information identifying the current status of a specific species of lumber found in the furniture and cabinetmaking industries.		
M W 7.2.01	Sheet Goods	Research and present information on the sources of raw materials for sheet good products.		
M W 7.2.02	Sheet Goods	Research and present information on the manufacturing process of sheet good products.		
M W 7.3.01	Surfaces	Research and present information on how laminate is manufactured.		
M W 7.3.02	Surfaces	Student will develop a method for repairing delaminations.		
M W 7.3.03	Surfaces	Research and present information on various solid surfaces used in the furniture and cabinetmaking industry.		
M W 7.4.01	Veneers	Research and present information on how veneers are manufactured.		
M W 7.4.02	Veneers	Demonstrate a method for repairing damaged veneers.		
M W 8	CONSTRUCTION			
M W 8.1.01	Furniture	Construct a cabriole leg.		
M W 8.1.02	Furniture	Hand carve a custom furniture part (i.e., ball and claw foot, appliqué, etc.).		
M W 8.1.03	Furniture	Demonstrate bending and laminating of material to a contoured shape.		
M W 8.2.01	Cabinetry	Construct a dovetail drawer.		
M W 8.2.02	Cabinetry	Construct a multiple cabinet layout.		
M W 8.3.01	Manufacturing	Develop a procedure to mass produce a product.		
M W 8.3.02	Manufacturing	Prepare a research paper on a manufacturing process that influences the furniture and cabinetmaking construction industry.		
M W 8.3.03	Manufacturing	Develop a flow chart and production schedule to mass produce a product.		
M W 8.3.04	Manufacturing	Research and present information on current trends in manufacturing and mass production.		
M W 8.3.05	Manufacturing	Develop a CNC produced part.		
M W 8.4.01	Hardware	Design and construct hardware for a specific project.		
M W 8.4.02	Hardware	Create a hardware schedule for a multiple cabinet installation.		

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M W 8.4.03	Hardware	Layout and install decorative hardware on a project.		
M W 8.4.04	Hardware	Develop a hardware installation template.		
M W 8.5.01	Plastics	Bend a laminate to match a contoured surface.		
M W 8.5.02	Plastics	Prepare a research paper describing how plastic laminate is manufactured.		
M W 8.5.03	Plastics	Research and present information about a solid surface material such as Corian.		
M W 8.5.04	Plastics	Demonstrate how to repair a delamination in plastic laminate.		
M W 9	FINISHING			
M W 9.1.01	Abrasives	Prepare a research paper on the manufacturing processes for abrasives.		
M W 9.2.01	Stains	Mixing different colors of stains to match an existing color.		
M W 9.2.02	Stains	Spray stain.		
M W 9.3.01	Sealers	Apply a two-part epoxy-finishing coat.		
M W 9.3.02	Sealers	Prepare a research paper comparing and contrasting different types of finish coats.		
M W 9.3.03	Sealers	Apply a French polish finish.		
M W 9.4.01	Fillers	Create a filler material for use in an application.		
M W 10	INSTALLATION			
M W 10.1.01	Transporting	Create a specialized crate to properly ship a project.		
M W 10.2.01	Layout/ Installation	Layout and install a complete set of kitchen cabinets at a job site.		
M W 10.2.02	Layout/ Installation	Install a bathroom vanity cabinet.		
M W 10.3.01	Countertops	Design and fabricate a substrate for a countertop installation.		
M W 10.3.02	Countertops	Scribe into two (2) adjacent corners.		
M W 10.3.03	Countertops	Install cut-ins (i.e., breadboard, sink, cook top)		
M W 10.4.01	Molding/ Trim	Design a custom molding and/or trim.		
M W 10.4.02	Molding/ Trim	Create a custom molding and/or trim for a specific project.		
M W 11	EMPLOYABILITY SKILLS			
M W 11.1.01	Problem Solving	Develop methods to analyze the advantages and disadvantages of alternative solutions.		
M W 11.1.02	Problem Solving	Devise an action plan for a furniture and cabinetmaking problem based on information gained through research of alternative solutions and implement in a group decision/action.		
M W 11.2.01	Critical Thinking	Analyze how critical-thinking skills affect work performance.		
M W 11.2.02	Critical Thinking	Formulate, implement, and evaluate an action plan.		
M W 11.2.03	Critical Thinking	Demonstrate the skills necessary to identify, analyze, and solve a design problem.		
M W 11.3.01	Speak, Write, Listen	Research and present information on a topic related to furniture and cabinetmaking.		
M W 11.3.02	Speak, Write, Listen	Prepare technical documents relating to bill of materials, blueprints, plan of procedures, etc.		
M W 11.3.03	Speak, Write, Listen	Present and defend a furniture and cabinetmaking procedure.		
M W 11.3.04	Speak, Write, Listen	Compete in a SkillsUSA job skill demonstration and/or public speaking contest.		
M W 11.4.01	Technology	Critique the use, benefits and cost of technologically advanced equipment in the furniture and cabinetmaking trades.		
M W 11.4.02	Technology	Analyze the impact of technological changes on one or more aspects of furniture and cabinetmaking trades by researching current literature.		
M W 11.4.03	Technology	Compete in a state-level SkillsUSA cabinetmaking contest.		
M W 11.5.01	Leadership and Teamwork	Analyze the stages of group development.		
M W 11.5.02	Leadership and Teamwork	Demonstrate leadership ability within a group or team.		
M W 11.5.03	Leadership and Teamwork	Compromise and/or build consensus within a group and summarize the decision of the group while maintaining respect for diverse viewpoints.		
M W 11.5.04	Leadership and Teamwork	Complete levels 1-3 of the SkillsUSA Professional Development Program.		
M W 11.5.05	Leadership and Teamwork	Campaign for a local SkillsUSA chapter office.		
M W 11.5.06	Leadership and Teamwork	Serve as a committee chair in a local SkillsUSA chapter.		
M W 11.6.01	Ethics	Demonstrate time-management skills and cost-effective practices.		
M W 11.7.01	Workplace	Recognize the individual roles of team members, delegate tasks, and provide feedback on performance.		
M W 11.7.02	Workplace	Acknowledge and utilize the skills, abilities, and input of all members of a team.		
M W 11.7.03	Workplace	Develop an action plan to accomplish tasks within a given period.		
M W 11.8.01	Career	Develop a community service or job-shadowing project.		
M W 11.8.02	Career	Develop an education/training plan to fulfill long-term career goals.		
M W 11.8.03	Career	Define advantages and disadvantages of self-employment or working for various sizes and types of businesses.		
M W 11.8.04	Career	Critique the results of a job interview.		
M W 11.8.05	Career	Develop a proposal for an organized community service project.		
M W 11.8.06	Career	Compete in a state level SkillsUSA job interview contest.		
M W 11.8.07	Career	Investigate the opportunities presented by an apprenticeship program.		
M W 11.9.01	Retention	Maintain an electronic portfolio.		
M W 11.9.02	Retention	Create a plan for lifelong learning.		
M W 11.9.03	Retention	Create a presentation illustrating interpersonal skills needed for job retention.		
M W 11.9.04	Retention	Adapt new knowledge and skills in changing situations.		
M W 11.9.05	Retention	Analyze how work life is affected by families and how families are affected by work life.		