

Wildcat Woodworking A Curriculum

(Revised Jan 2009)

- I. Developing Safe Use and Techniques of Woodworking Equipment**
 - a. Level 1 Safety Competencies – can be earned individually for each piece of equipment.
 - i. Lathe
 - ii. Band Saw
 - iii. Scroll Saw
 - iv. Router
 - v. Sanding Equipment
 - vi. Drill/Drill Press
 - vii. Miter Saw
 - b. Level 2 Safety Competencies – Must be earned collectively for all equipment
 - i. Jointer
 - ii. Planer
 - iii. Table Saw
- II. Lumber: Characteristics and Societal Influences**
 - a. Identification
 - i. Softwood
 - 1. Pine
 - 2. Bass
 - ii. Hardwood
 - 1. Red Oak
 - 2. Ash
 - 3. Hickory
 - 4. Maple
 - 5. Walnut
 - 6. Cherry
 - 7. Exotics (Purpleheart, Paduak)
 - b. Industry
 - i. Michigan Lumber Industries
 - ii. Forrest Sustainability
 - iii. Economic Trends
- III. Historical and Cultural Influences on Furniture Making**
 - a. Major Styles of Furniture
 - b. Local Influences
 - c. Contemporary Influences
- IV. Furniture Making: The Creative Process**
 - a. Project Plans – reading and understanding material lists of existing project plans
 - b. Maximizing Your Materials
 - i. Board Foot – calculation to figure material needed and lumber costs
 - ii. % yield – calculating the efficiency of wood used
- V. Individual Skill Competencies**
 - a. Joints
 - i. Miter

- ii. Edge Cross
- iii. Lap (Full, Half, Cross, Finger)
- iv. Rabbet/Dado
- v. Pocket Hole Joint (Kreg Jig)
- vi. Biscuit
- vii. Key Way
- viii. Mortise and Tenon
- b. Sanding
- c. Finishing
- d. Milling Lumber
 - i. 5 Step Process
 - ii. Gluing Up Panels

VI. Demonstration and Application of Skills

- a. Lathe
 - i. Beginning Practice Project #1
 - ii. Duplication Project #3
 - iii. Pen Project #4 (may be repeated with acrylic and other approved)
 - iv. Choice Project (extra credit)
- b. Scroll Saw
 - i. Logo Project #2
 - ii. Puzzle Project #5
 - iii. Choice Project (extra credit)
- c. Router
 - i. Rabbet/Dado Project #6
- d. Band Saw
 - i. Optional Band Saw Box Project (extra credit)
- e. Hand Tools
 - i. Miter Joint Project #7 – using hand saw
 - ii. Edge Cross / Lap Joints Project #8a-e
 - iii. Pocket Hole Joinery Project #9
- f. Plate Joiner
 - i. Biscuit Joint Project #10
 - ii. Key Way Joint Project (extra credit)
- g. Mortise and Tenon
 - i. Project #11

VII. Culminating Activity

- a. Milling Lumber
 - i. Final Project – Cutting Board
 - ii. Project Portfolio – students will create a portfolio of the different projects that they finished during the course
 - iii. Presentation - Upon course completion each student will select one or more of their projects and exhibit in the school display case and/or enter into the MITES competition.

Wildcat Woodworking B Curriculum

(Revised Jan 2009)

- I. Developing Safe Use and Techniques of Woodworking Equipment (C.3)**
 - a. Level 1 Safety Competencies – Review assessment (revisit individually as needed)
 - b. Level 2 Safety Competencies – Must be earned collectively for all equipment
 - i. Jointer
 - ii. Planer
 - iii. Table Saw

- II. Individual Skill Competencies (C.3, C.4)**
 - a. Miling Lumber (Project #1 – Diamond in the Rough)
 - b. Dowel Joinery (Project #2 – End Grain Attachment)
 - c. Creating Wide Panels (Project #3 – Wide Panel)

- III. Furniture Making: The Creative Process (C.1, C.5)**
 - a. Identify Favorite Style
 - b. Project Plans – researching and deciding on project
 - c. Planning Project – Assess feasibility
 - d. Maximizing Your Materials
 - i. Board Foot – calculation to figure material needed and lumber costs
 - ii. % yield – calculating the efficiency of wood used
 - e. Project Portfolio

- IV. Demonstration and Application of Skills (C.4, P.1, P.2)**
 - a. Each student must select additional small projects to include in the required curriculum
 - i. Lathe
 - 1. Advanced Pen Project
 - 2. Travel Mug Project
 - 3. Pepper Mill Project
 - 4. Lamp Project
 - 5. Choice Alternative – must be preapproved
 - ii. Scroll Saw
 - 1. Picture Puzzle Project
 - 2. Choice Alternative – must be preapproved
 - iii. Router
 - 1. Storage Box Project
 - 2. Choice Alternative – must be preapproved
 - iv. Band Saw
 - 1. Jewelry Box Project
 - 2. Choice Alternative – must be preapproved
 - v. Table Saw
 - 1. Checker/Chess Board Project
 - 2. Choice Alternative – must be preapproved

V. Culminating Activity (C.4, C.5, P.1, P.2, P.4, R.4)

a. Final Project

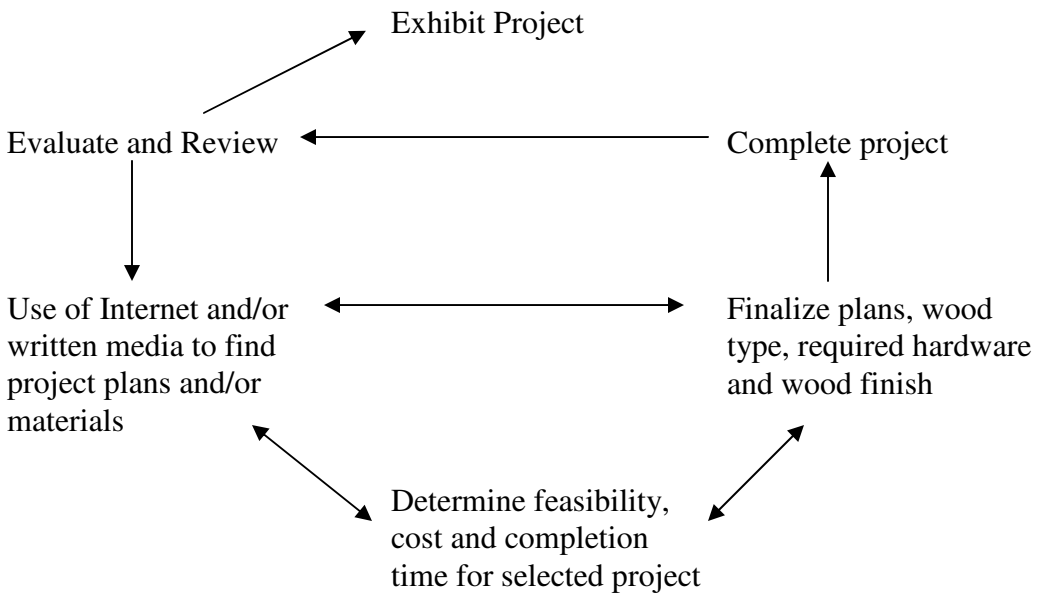
- i. Project Portfolio – students will create a portfolio of the different projects that they finished during the course
- ii. Presentation - Upon course completion each student will select one or more of their projects and exhibit in the school display case and/or enter into the MITES competition.
- iii. Optional – Attend the regional MITES exhibition in Grand Rapids in the first week of May

Woodworking Program

Fine Arts Strands of the MMC

Strand I: Create (C)

C.1 – Iterative cycles



C.2 – Historical context

C.3 – Developing techniques, skills and technologies

C.4 – Use of tools to implement techniques, skill and technologies

C.5 – Project reflection

Strand II: Perform/Present (P)

P.1 – Apply the techniques and communicate ideas

P.2 – Demonstrate skillful use of appropriate vocabulary, tools and techniques

P.3 – Describe the potential use of project and/or

P.4 – Present and/or exhibit project in school display case or MITES competition

Strand III: Respond (R)

R.1 – Observe, describe and reflect on woodworkers and their styles

R.2 – Identify, describe and analyze connections across other disciplines

R.3 – Describe, analyze and understand woodworking in historical, contemporary, cultural and environmental contexts

R.4 - Reflect