



# Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

Wednesday, August 20, 2014, 2:27PM



	Unit	Course Standards and Objectives	Content	Skills	Vocabulary
<p>District Basic <a href="#">Woodworking (48.0701)</a> (District) 2014-2015 <a href="#">Collaboration</a></p>	<p><a href="#">Woodworking Introduction and Careers</a> (Week 1, 1 Week)</p>	<p>UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 1 Students will be able to understand the woodworking industry.</p> <ul style="list-style-type: none"> <li>▪ Objective 1 Identify career opportunities in cabinetmaking/millwork manufacturing.</li> <li>▪ Objective 2 Identify career opportunities in related millwork industries.</li> <li>▪ Objective 3 Describe the integration of cabinetmaking into construction schedules.</li> </ul> <p>Standard 13 The student will understand and apply professional development skills in the workplace.</p> <ul style="list-style-type: none"> <li>▪ Objective 3 The student will understand the need for career planning.               <ol style="list-style-type: none"> <li>a. Define your future occupation.</li> <li>b. Survey employment opportunities.</li> <li>c. Report on a trade journal article.</li> <li>d. Explore opportunities for advanced training.</li> <li>e. Conduct a worker interview.</li> <li>f. Contact a professional association.</li> <li>g. Explore entrepreneurship opportunities.</li> <li>h. Give a talk about your career.</li> <li>i. Review career goals.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Importance of woodworking in society</li> <li>▪ Job outlook</li> <li>▪ Occupations in woodworking</li> <li>▪ Computer use in woodworking</li> <li>▪ Going green - woodworking and the green environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Describe the importance of the woodworking industry.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Job</li> <li>▪ Careers</li> <li>▪ Mill worker</li> <li>▪ Cabinet maker</li> <li>▪ Foreman</li> <li>▪ Pattern Maker</li> <li>▪ CNC operator</li> </ul>

## Tool and Machine

Safety  (Week 1, 4 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Woodworking  
Standard 3  
Students will be able to understand and demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.
- Objective 2  
Demonstrate the safe use of woodworking tools and machines.
- Objective 3  
Define MSDS and know its purpose.
- Objective 4  
Pass a written safety test with a score of 100 percent.

Standard 4  
Students will be able to understand and demonstrate the safe use of hand tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following measuring and layout tools: Measuring tape, Scratch awl, Framing square, Combination square, Try square
- Objective 2  
Describe the purpose and demonstrate the proper use of the following cutting and shaping tools: Utility knife, Back saw, Hand plane, Wood chisel, Wood file/rasp
- Objective 3  
Describe the purpose and demonstrate the proper use of the following striking tools: Claw hammer, Nail set, Rubber mallet, Dead-blow hammer
- Objective 4  
Describe the purpose and demonstrate the proper use of the following drill bits: Twist, Forstner, Spade, Countersink and Driver bits: Phillips, Square,

## Safe and Proper Use of Hand Tools, Power Tools and Machines

- Safe use of all tools and machines
- Safe shop behavior
- Identification of hand and power tools
- How to choose the proper tool for the job
- Basic tool and machine setup

- Pass safety test at 100%
- Identify basic woodworking hand tools
- Identify basic woodworking power hand tools
- Identify basic stationary woodworking machines
- Use basic working tools and machines safely

## Hand Tools

- Measuring tape
- Scratch awl
- Framing square
- Combination square
- Try square
- Utility knife
- Back saw
- Hand plane
- Wood chisel
- Wood file/rasp
- Claw hammer
- Nail set
- Rubber mallet
- Dead-blow hammer
- Twist
- Forstner
- Spade
- Countersink and Driver bits- Phillips, Square, slotted

## Hand Power Tools

- Pneumatic nailer
- Power drills
- Router
- Finish sander
- Belt sander
- Orbital sander

## Machines

- Surface planer
- Jointer
- Disc sander
- Surface sander
- Spindle sander
- Router table
- Shaper
- Drill press
- Table saw
- Power Miter Saw
- Radial arm saw
- Band saw
- Up-cut saw

slotted

Standard 5

Students will be able to understand and demonstrate the safe use of portable power tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following portable power tools: Pneumatic nailer, Power drills, Router, Finish sander, Belt sander and Orbital sander

Standard 6

Students will be able to understand and demonstrate the safe use of power machines.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following sawing machines: Table saw, Power Miter Saw, Radial arm saw and Band saw
- Objective 2  
Describe the purpose and demonstrate the proper use of the following surfacing machines: Surface planer and Jointer
- Objective 3  
Describe the purpose and demonstrate the proper use of the following sanding machines: Disc sander, Surface sander and Spindle sander
- Objective 4  
Describe the purpose and demonstrate the proper use of the following shaping machines: Router table and Shaper
- Objective 5  
Describe the purpose and demonstrate the proper use of the following drilling machines: Drill press

Measurements

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Woodworking

▪ Decimals and fractions

▪ Read a ruler within 1/16 of an inch accuracy

▪ Metrics  
▪ Imperial System

**and Layout**   
(Week 4, 4 Weeks) 

Standard 2  
Students will be able to understand the design, planning and estimation process.

- Objective 1  
Read and use a working drawing to create a project.

Standard 4  
Students will be able to understand and demonstrate the safe use of hand tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following measuring and layout tools: Measuring tape, Scratch awl, Framing square, Combination square, Try square

Standard 8  
Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 1  
Add two- and three-digit numbers.
- Objective 2  
Subtract two-, three-, and four-digit numbers.
- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 6  
Convert fractions to decimals.
- Objective 7  
Reduce fractions.
- Objective 8  
Add, subtract, multiply, and divide decimal numbers.
- Objective 9  
Calculate percentages and basic ratios.
- Objective 10  
Add and subtract linear

- Conversion of fractions to decimals
- Standard and metric systems
- Reading a ruler
- Use of layout tools

- Add, subtract, divide and multiply fraction of an inch
- Use the following properly measure and mark components of a project (try square, framing square, tape measure, combination square, pencil, scratch awl)
- Use patterns or templates for repetitive layout
- Convert fractions to decimals

- Numerator
- Denominator
- Fractions of an inch down to the 1/16th
- Tape measure
- Ruler
- Try square
- Framing square
- Combination square
- Scratch awl

measurement in feet and inches.

- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.

### Wood Fundamentals

(Week 6, 2 Weeks)



UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 7  
Students will be able to understand wood products and characteristics and procedures.

- Objective 1  
Distinguish between softwoods and hardwoods.
  - a. Softwoods – pine, red cedar
  - b. Hardwoods – cherry, oak, alder, walnut, maple
- Objective 2  
Distinguish between solid woods and man-made goods.
  - a. Plywood
  - b. Particle board
  - c. MDF

- Differences between hardwoods and softwoods
- Species identification
- Difference between solid woods and man-made woods
- Identification of manufactured woods

- Distinguish between hardwoods and softwoods
- Identify hardwood types (cherry, oak, alder, walnut, maple)
- Identify softwood types (pine, red cedar)
- Identify man-made wood materials

### Tier 2

- hardness
- softness
- grain
- open
- closed
- ply
- cherry
- bark
- pine
- cedar
- leaves
- needles
- conifer
- deciduous
- medulary ray
- growth ring
- pith
- veneer
- cambium
- kiln

### Tier 3

- hardwood
- softwood
- heart wood
- sap wood
- quarter sawn
- plane sawn
- open/closed grain

### Gluing and Clamping

(Week 7, 2 Weeks)



UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 8  
Students will be able to understand and demonstrate basic math and measuring concepts.

- Names, types and use of clamps
- Different types of adhesives and their uses
- Proper gluing techniques

- Join two or more pieces of wood with adhesive
- Use the clamps correctly
- Alternate grain of wood
- Apply the adhesive properly
- Identify and use basic woodwork fasteners

### Tier 2

- screws
- nails
- staples
- adhesive/glue

- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.

Standard 9  
Students will be able to understand and demonstrate the use of fasteners and adhesives.

- Objective 1  
Identify the various woodworking fasteners and the application of each.
  - Nails
  - Screws
  - Staples
- Objective 2  
Properly use an adhesive in the construction of a project.
- Objective 3  
Identify the different types of clamps.
  - Bar
  - "C"
  - Spring
  - Handscrew

Standard 10  
Students will be able to understand and demonstrate the use of joinery.

- Objective 2  
Construct a basic woodworking project using the basic joints.

- Curing times
- Types of fasteners (screws, nails, staples)
- How to read a tape measure
- What squares are
- Divide fractions
- Identify if a project is out of square and how to fix it

- Complete clean-up process by removing excess glue
- Use a square to check a project for squareness
- Use a tape measure to square a project

- C clamp
- clamps
- curing
- square
- symmetry

### Tier 3

- steel bar clamp
- parallel clamp
- hand screw clamp
- spring clamp
- band clamp
- quick grip/speed clamp
- pipe clamp
- yellow glue (Titebond)
- Titebond III (waterproof)

### Project Planning



(Week 8, 2 Weeks)

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking  
Standard 2

Students will be able to understand the design, planning and estimation process.

- Objective 1  
Read and use a working drawing to create a project.
- Objective 2  
Use a material list.
- Objective 3

- Board footage formula
- Loss factor percentage/waste percentage
- Reading a tape measure to 1/16"
- Basic thickness, width and length of boards
- Grain and impact on width and length - surfaces of the

- Change fractions to decimals
- Round up numbers
- Calculate board footage
- Follow a simple material list
- Follow a simple plan of procedure
- Read a simple working drawing

### Tier 2

- working drawing
- feet
- inches
- percentage
- waste
- thickness
- width
- length
- surface
- edge

Use a procedure list.

#### Standard 8

Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 1  
Add two- and three-digit numbers.
- Objective 2  
Subtract two-, three-, and four-digit numbers.
- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 6  
Convert fractions to decimals.
- Objective 7  
Reduce fractions.
- Objective 8  
Add, subtract, multiply, and divide decimal numbers.
- Objective 9  
Calculate percentages and basic ratios.
- Objective 10  
Add and subtract linear measurement in feet and inches.
- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.



- board
- What a materials list is
- What is a plan of procedure
- What is a working drawing and how to read it
- Names of parts of a project (stiles, rails, sides, top, bottom, back)

- end
- plan of procedure
- material list
- square feet
- linear feet

#### Tier 3

- board feet
- working drawing

#### Finishing Processes

(Week 11, 2 Weeks)  

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 12

The student will be able to understand and demonstrate sanding and finishing techniques.

- Objective 1  
Understand and properly apply the basic rules of sanding.
- Objective 2

- Basic sanding rules
- Graduations in sand paper
- Types of finish - evaporative, reactive coalescing (growing together or fusing)
- What stain does
- Finishing rules (i.e. sand between

- Properly prepare and apply a finish to a project
- Identify the grits or graduations in sandpaper to use in sequence
- Properly apply a stain
- Properly a finish
- Identify and remove excess glue

#### Tier 2

- Penetrating
- Top Coat
- Lacquer
- Varnish
- Sand paper
- Lacquer thinner
- Paint thinner
- Spray gun

- Properly prepare a surface for Finishing.
- Objective 3  
Properly apply stain and/or clear finish.

- coats)
- How to fix runs/problems
- Glue removal

- Stain
- Scraper

**Joinery**  (Week 13, 2 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 10  
Students will be able to understand and demonstrate the use of joinery.

- Objective 1  
Identify the basic woodworking joints
  - Butt
  - Miter
  - Rabbet
  - Dado
- Objective 2  
Construct a basic woodworking project using the basic joints.

- Different types of joints
- Purpose of the types of joints
- How joints are made

- Identify different types of joints (butt joint, miter joint, rabbet joint, dado joint)
- Construct a basic project using the joints

**Level 1**

- Joint

**Level 2**

- Butt joint
- Miter joint
- Joinery

**Level 3**

- Rabbet joint
- Dado joint

**Hardware**  (Week 15, 3 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 8  
Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 10  
Add and subtract linear measurement in feet and inches.
- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.

- Different types of hinges
- Different types of drawer guides
- Knobs and pulls
- Addition, subtraction and division of mixed numbers

- Choose the correct hinges and hardware
- Mount hardware
- Identify different hinges and door guides
- Use math to center the hardware on drawers and doors

**Tier 2**

- knobs
- pull
- hinges
- overlay
- European
- butt hinge
- inset hinge
- drawer guides
- flush

Standard 11  
Students will be able to understand and demonstrate the use of cabinet components and hardware.

- Objective 1  
Complete a project.



- Objective 2  
Identify common cabinet/furniture hardware.
  - a. Hinges – overlay and butt, and European
  - b. Drawer guides (wood or metal)
  - c. Knobs and pulls

**Competency Test**

**Review**  (Week  
19, 2 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Woodworking  
Standard 1  
Students will be able to understand the  
woodworking industry.

- Students need to know 80% of it

Pass the state competency

80% of all of it

- Objective 1  
Identify career opportunities in cabinetmaking/millwork manufacturing.
- Objective 2  
Identify career opportunities in related millwork industries.
- Objective 3  
Describe the integration of cabinetmaking into construction schedules.

Standard 2  
Students will be able to understand the design, planning and estimation process.

- Objective 1  
Read and use a working drawing to create a project.
- Objective 2  
Use a material list.
- Objective 3  
Use a procedure list.

Standard 3  
Students will be able to understand and demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.
- Objective 2  
Demonstrate the safe use of woodworking tools and

machines.

- Objective 3  
Define MSDS and know its purpose.
- Objective 4  
Pass a written safety test with a score of 100 percent.

#### Standard 4

Students will be able to understand and demonstrate the safe use of hand tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following measuring and layout tools: Measuring tape, Scratch awl, Framing square, Combination square, Try square
- Objective 2  
Describe the purpose and demonstrate the proper use of the following cutting and shaping tools: Utility knife, Back saw, Hand plane, Wood chisel, Wood file/rasp
- Objective 3  
Describe the purpose and demonstrate the proper use of the following striking tools: Claw hammer, Nail set, Rubber mallet, Dead-blow hammer
- Objective 4  
Describe the purpose and demonstrate the proper use of the following drill bits: Twist, Forstner, Spade, Countersink and Driver bits: Phillips, Square, slotted

#### Standard 5

Students will be able to understand and demonstrate the safe use of portable power tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following portable power tools: Pneumatic nailer, Power drills, Router, Finish sander,

## Belt sander and Orbital sander

### Standard 6

Students will be able to understand and demonstrate the safe use of power machines.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following sawing machines:  
Table saw, Power Miter Saw, Radial arm saw and Band saw
- Objective 2  
Describe the purpose and demonstrate the proper use of the following surfacing machines: Surface planer and Jointer
- Objective 3  
Describe the purpose and demonstrate the proper use of the following sanding machines:  
Disc sander, Surface sander and Spindle sander
- Objective 4  
Describe the purpose and demonstrate the proper use of the following shaping machines:  
Router table and Shaper
- Objective 5  
Describe the purpose and demonstrate the proper use of the following drilling machines:  
Drill press

### Standard 7

Students will be able to understand wood products and characteristics and procedures.

- Objective 1  
Distinguish between softwoods and hardwoods.
  - a. Softwoods – pine, red cedar
  - b. Hardwoods – cherry, oak, alder, walnut, maple
- Objective 2  
Distinguish between solid woods and man-made goods.
  - a. Plywood
  - b. Particle board

c. MDF

Standard 8

Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 1  
Add two- and three-digit numbers.
- Objective 2  
Subtract two-, three-, and four-digit numbers.
- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 6  
Convert fractions to decimals.
- Objective 7  
Reduce fractions.
- Objective 8  
Add, subtract, multiply, and divide decimal numbers.
- Objective 9  
Calculate percentages and basic ratios.
- Objective 10  
Add and subtract linear measurement in feet and inches.
- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth ( $1/16$ ) of an inch.

Standard 9

Students will be able to understand and demonstrate the use of fasteners and adhesives.

- Objective 1  
Identify the various woodworking fasteners and the application of each.
  - a. Nails
  - b. Screws

- c. Staples
- Objective 2  
Properly use an adhesive in the construction of a project.
- Objective 3  
Identify the different types of clamps.
  - a. Bar
  - b. "C"
  - c. Spring
  - d. Handscrew

#### Standard 10

Students will be able to understand and demonstrate the use of joinery.

- Objective 1  
Identify the basic woodworking joints
  - a. Butt
  - b. Miter
  - c. Rabbet
  - d. Dado
- Objective 2  
Construct a basic woodworking project using the basic joints.

#### Standard 11

Students will be able to understand and demonstrate the use of cabinet components and hardware.

- Objective 1  
Complete a project.
- Objective 2  
Identify common cabinet/furniture hardware.
  - a. Hinges – overlay and butt, and European
  - b. Drawer guides (wood or metal)
  - c. Knobs and pulls

#### Standard 12

The student will be able to understand and demonstrate sanding and finishing techniques.

- Objective 1  
Understand and properly apply the basic rules of sanding.

- Objective 2  
Properly prepare a surface for Finishing.
- Objective 3  
Properly apply stain and/or clear finish.

**Project Design**   
(Week 21, 3 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Woodworking  
Standard 2  
Students will be able to understand the design, planning and estimation process.

- Objective 1  
Read and use a working drawing to create a project.
- Objective 2  
Use a material list.
- Objective 3  
Use a procedure list.

Standard 8  
Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 9  
Calculate percentages and basic ratios.

- How to use a working drawing.
- How to write a bill of material.
- How to write a plan of procedure.

- Change fractions to decimals
- Round up numbers
- Calculate board footage
- Make a simple material list
- Make a simple plan of procedure
- Read a working drawing

**Tier 2**

- working drawing
- feet
- inches
- percentage
- waste
- thickness
- width
- length
- surface
- edge
- end
- plan of procedure
- material list
- square feet
- linear feet

**Tier 3**

- board feet
- working drawing

**Frame and Panel Construction**   
(Week 24, 3 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Woodworking  
Standard 6  
Students will be able to understand and demonstrate the safe use of power machines.

- Objective 4  
Describe the purpose and demonstrate the proper use of the following shaping machines:

- frame and panel parts
- frame and panel joinery
- how to calculate the part dimensions for a frame and panel component.

- construct a door or cabinet component using frame and panel construction methods
- calculate the size of the parts for a frame and panel cabinet component

Tier 2

- expansion
- contraction
- square (verb)

- stile
- rail
- panel

Router table and Shaper

Tier 3

Standard 8

Students will be able to understand and demonstrate basic math and measuring concepts.

- Objective 1  
Add two- and three-digit numbers.
- Objective 2  
Subtract two-, three-, and four-digit numbers.
- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 6  
Convert fractions to decimals.
- Objective 7  
Reduce fractions.
- Objective 8  
Add, subtract, multiply, and divide decimal numbers.
- Objective 10  
Add and subtract linear measurement in feet and inches.
- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.

- mullion

Standard 9

Students will be able to understand and demonstrate the use of fasteners and adhesives.

- Objective 2  
Properly use an adhesive in the construction of a project.

4 Weeks) 

demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.
- Objective 3  
Define MSDS and know its purpose.

Standard 8

Students will be able to understand and demonstrate basic math and measuring concepts.



- Objective 9  
Calculate percentages and basic ratios.

Standard 12

The student will be able to understand and demonstrate sanding and finishing techniques.

- Objective 1  
Understand and properly apply the basic rules of sanding.
- Objective 2  
Properly prepare a surface for Finishing.
- Objective 3  
Properly apply stain and/or clear finish.

### Other Machines

 (Week 31, 3 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 3  
Students will be able to understand and demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.
- Objective 2  
Demonstrate the safe use of woodworking tools and machines.

- how to use these machines properly and safely
- The woodworking operations for which these machines would be used.

- operate the equipment properly and safely

- spindle sander
- inside curve
- outside curve
- shaper
- gyrosyncronous



Standard 6  
Students will be able to understand and demonstrate the safe use of power machines.

- Objective 3  
Describe the purpose and demonstrate the proper use of the following sanding machines:  
Disc sander, Surface sander and Spindle sander
- Objective 4  
Describe the purpose and demonstrate the proper use of the following shaping machines:  
Router table and Shaper
- Objective 5  
Describe the purpose and demonstrate the proper use of the following drilling machines:  
Drill press

**State Copetency**

**Test Review**

(Week 34, 3 Weeks)

UT: CTE: Skilled and Technical Sciences, all materials from each of the  
UT: Grades 9-12, Woodworking previous units

all vocabulary in each of the  
previous units

Standard 2  
Students will be able to understand the design, planning and estimation process.

- Objective 1  
Read and use a working drawing to create a project.
- Objective 2  
Use a material list.
- Objective 3  
Use a procedure list.

Standard 3  
Students will be able to understand and demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.
- Objective 2  
Demonstrate the safe use of woodworking tools and machines.
- Objective 3  
Define MSDS and know its purpose.

- Objective 4  
Pass a written safety test with a score of 100 percent.

#### Standard 4

Students will be able to understand and demonstrate the safe use of hand tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following measuring and layout tools: Measuring tape, Scratch awl, Framing square, Combination square, Try square
- Objective 2  
Describe the purpose and demonstrate the proper use of the following cutting and shaping tools: Utility knife, Back saw, Hand plane, Wood chisel, Wood file/rasp
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Describe the purpose and demonstrate the proper use of the following striking tools: Claw hammer, Nail set, Rubber mallet, Dead-blow hammer
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Describe the purpose and demonstrate the proper use of the following drill bits: Twist, Forstner, Spade, Countersink and Driver bits: Phillips, Square, slotted

#### Standard 5

Students will be able to understand and demonstrate the safe use of portable power tools.

- Objective 1  
Describe the purpose and demonstrate the proper use of the following portable power tools: Pneumatic nailer, Power drills, Router, Finish sander, Belt sander and Orbital sander

#### Standard 6

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#### Standard 7

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- Objective 2  
Distinguish between solid woods and man-made goods.
  - a. Plywood
  - b. Particle board
  - c. MDF

#### Standard 8

Students will be able to understand and

demonstrate basic math and measuring concepts.

- Objective 1  
Add two- and three-digit numbers.
- Objective 2  
Subtract two-, three-, and four-digit numbers.
- Objective 3  
Solve two-digit divisor numbers.
- Objective 4  
Multiply a two-digit factor.
- Objective 5  
Add, subtract, multiply, and divide fractions and mixed numbers.
- Objective 6  
Convert fractions to decimals.
- Objective 7  
Reduce fractions.
- Objective 8  
Add, subtract, multiply, and divide decimal numbers.
- Objective 9  
Calculate percentages and basic ratios.
- Objective 10  
Add and subtract linear measurement in feet and inches.
- Objective 11  
Use a ruler or measuring tape to measure within a sixteenth ( $1/16$ ) of an inch.

#### Standard 9

Students will be able to understand and demonstrate the use of fasteners and adhesives.

- Objective 1  
Identify the various woodworking fasteners and the application of each.
  - a. Nails
  - b. Screws
  - c. Staples
- Objective 2  
Properly use an adhesive in the construction of a project.

- Objective 3  
Identify the different types of clamps.
  - a. Bar
  - b. "C"
  - c. Spring
  - d. Handscrew

Standard 10

Students will be able to understand and demonstrate the use of joinery.

- Objective 1  
Identify the basic woodworking joints
  - a. Butt
  - b. Miter
  - c. Rabbet
  - d. Dado
- Objective 2  
Construct a basic woodworking project using the basic joints.

Standard 11

Students will be able to understand and demonstrate the use of cabinet components and hardware.

- Objective 1  
Complete a project.
- Objective 2  
Identify common cabinet/furniture hardware.
  - a. Hinges – overlay and butt, and European
  - b. Drawer guides (wood or metal)
  - c. Knobs and pulls

Standard 12

The student will be able to understand and demonstrate sanding and finishing techniques.

- Objective 1  
Understand and properly apply the basic rules of sanding.
- Objective 2  
Properly prepare a surface for Finishing.
- Objective 3

Properly apply stain and/or clear finish.

**State Competency**

**Test**  (Week 37, 1 Week) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 13  
The student will understand and apply professional development skills in the workplace.

- Objective 1  
Students will understand the need for professional development.
  - a. Complete a personal inventory.
  - b. Set and meet goals.
  - c. Be self-motivated.
  - d. Know how to make decisions.
  - e. Know how to manage time.
  - f. Organize personal belongings and lab equipment.
  - g. Learn to communicate verbally.
  - h. Write effective communications.
  - i. Establish a personal reading program.
  - j. Develop effective work skills and attitudes.
  - k. Master a working knowledge of SkillsUSA.\*
    - Learn the acronym SkillsUSA.
    - State the SkillsUSA motto.
    - State the SkillsUSA creed.
    - Learn the SkillsUSA colors.
    - Describe the official SkillsUSA dress.
    - Describe the procedure for becoming a SkillsUSA officer.

▪ review for the state competency test

▪ review for the state competency test

all vocabulary in each of the previous units

**Shop Clean Up and Project**

**Evaluation**  (Week 37, 2 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Woodworking Standard 1  
Students will be able to understand the woodworking industry.

- Objective 2  
Identify career opportunities in

▪ the importance of cleaning, organizing, and maintaining a lab facility

- How to clean a lab including the machinery
- How to work hard performing a task

▪ carry out their organizing and cleanup responsibilities

- hard work
- responsibility
- environment
- waste
- recycle
- chemical hazard
- hazardous waste

related millwork industries.

that you do not  
really want to do.

Standard 3

Students will be able to understand and demonstrate safe practices.

- Objective 1  
Demonstrate the ability to work safely in a cabinet shop following general safety rules.

Standard 13

The student will understand and apply professional development skills in the workplace.

- Objective 1  
Students will understand the need for professional development.
  - a. Complete a personal inventory.
  - b. Set and meet goals.
  - c. Be self-motivated.
  - d. Know how to make decisions.
  - e. Know how to manage time.
  - f. Organize personal belongings and lab equipment.
  - g. Learn to communicate verbally.
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