MONROE TOWNSHIP PUBLIC SCHOOLS
WILLIAMSTOWN, NEW JERSEY

Williamstown High School

Construction Technology I

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Monroe Township Public Schools
Williamstown, New Jersey

Philosophy of Education

The administration, faculty, and staff of Monroe Township Public Schools, in cooperation with parent and the community, and with active participation of the students, are committed to viewing each other as individuals, respecting each person's uniqueness, and setting high expectations for all students. The school system will assist each student to become a contributing member of our society by providing a learning environment that is responsive to the needs of the individual student, community, and changing society by providing a learning environment that nurtures values and morals. This environment will be conducive to acquisition of knowledge, as well as to the development of problem solving, critical thinking, and organizational skills. We will provide a learning environment that is responsive to the needs of the individual student, community, and changing society. We will aid our students in developing responsible behavior, a positive attitude toward themselves and others, the necessary life skills to become productive citizens and lifetime learners. We accept the challenge and responsibility of accomplishing these goals.

Revised: August, 1996

Williamstown High School
Williamstown, New Jersey

Industrial Technology Education

Philosophy

The Industrial Technology is an area of study that helps students become technologically literate. Through classroom lessons and lab activities, students learn about the technical, social and cultural impacts of technology in our world. Students acquire a new vocabulary that helps them to better express their knowledge of technology. Likewise, their hands-on experiences in technology education teach them how to use tools and equipment while applying safety principles to accomplish technical tasks. Students will use critical thinking, decision making and problem solving skills to create drawings and products. Students will be exposed to various careers and develop workplace readiness skills. The goal of the Industrial Technology Education Department is to also develop self-management skills and self-pride in each student. Students should be convinced of what they will need to know for the next century and be prepared to enter the work force directly with marketable skills or to further their education when they graduate.

Williamstown High School
Williamstown, New Jersey

Purpose Statement

Construction Technology I

Construction Technology I is a student's first chance at woodworking and related construction technologies. Basic math and measurement skills related to the area are reinforces while hand tool use and machine operation are introduced. Individual projects comprise the "hands-on" techniques needed to master safe woodworking techniques.

Every effort is made to motivate each student and clearly layout what they should know and be able to do at this level of secondary education and their coming role as young adults in this complex society. Pride in quality work and craftsmanship are introduced and reinforced throughout the course.

The skilled trades still exist side by side with the recreational craftsman, hobbiest, do-it yourselfers, and home owner. You can easily see how this course can not only be the take off point for a construction track, but also a lifelong asset as the student completes the listed proficiencies.

Career planning and work-place readiness is a vital purpose of the grogram. Students will use technology and tools in many areas, such as: critical thinking, decision making, problem-solving, self organization and management skills As in all content areas, safety is an important component as students are taught to apply safety principles that will ensure their own safety and health, as well as the safety and health of others.

Williamstown High School
Williamstown, New Jersey

COURSE PROFICIENCY REQUIREMENTS

Course: Construction Technology I
Teacher: Staff
Credits: 5
Weighted for Class Rank: No
Pursuant to the High School Graduation Standards Act (NJSA 18A:7, et. seq) successful completion of this course will require:

A. Regular attendance as mandated by Board Policy.
B. Mastery of the below content/objectives and achievement of the proficiencies required.

Overview:

Construction Technology I is a first year course in woodworking and related construction technologies. Basic measurements, layout, hand tool, portable power tools and a sampling of stationary power tools are used in a "hands-on" project base shop setting. The course is designed for anyone interested in the fundamentals of materials tools, machines and processes used in the manufacture of today's products and construction projects.
The nature and properties of wood are studied along with other manufactured wood products so widely used today. Woodworking projects are planned, and construction techniques covered as projects begin to take shape on various levels from simple to more complex.

Proficiencies: Upon Completion of this course the student will be able to:

1. Demonstrate measurement and calculation techniques related to construction technology.
2. Solve and layout basic design problems (problem solving.)
3. Demonstrate the safe use of hand tools.
4. Demonstrate the safe use of portable power tools.
5. Describe the safe and correct procedure sin machine set-up, operation, and maintenance.
6. Competently complete the skills necessary in project fabrication.
7. Describe and use a variety of constriction materials.
8. Identify and use a variety of construction fasteners.
9. Demonstrate construction safety.
10. Participate in good housekeeping.
11. Develop career planning and workplace readiness.
12. Apply self management skills.
13. Describe construction technology.
14. Explain the basic procedures for making a construction project.

Career/Objectives:

1. To develop basic skills needed to continue on in a construction technology track,
2. To being to develop entry level job skills.
3. To exhibit skills needed in various other related areas of this complex society.

Measurement of Student Achievement:

Test, quizzes, homework, portfolio and projects and participation comprise the student's grade. Letter grade to be based on board policy.

SCOPE AND SEQUENCE

Safety

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Introduction to Safety **	**I**	**R**	**R**	**R**	**I**
Accident Prevention **	**I**	**I**	**R**	**R**	**I**
Safety Attitudes **	**I**	**R**	**R**	**R**	**I**
General Safety Rules **					
Emergency Switches **	**I**	**R**	**R**	**R**	**I**
Machine Usage **	**I**	**I**	**R**	**R**	**I**
Concentration **	**I**	**R**	**R**	**R**	**I**
Clean Work Area **	**I**	**I**	**R**	**R**	**I**
Eye Safety **	**I**	**R**	**R**	**R**	**I**
Clothing **	**I**	**R**	**R**	**R**	**I**
Hearing Protection **	**I**	**I**	**R**	**R**	**I**
Respiratory Protection **	**I**	**R**	**R**	**R**	**I**
Lifting **	**I**	**I**	**R**	**R**	**I**
Obey Rules **	**I**	**R**	**R**	**R**	**I**
Courteous & Respect **	**I**	**R**	**R**	**R**	**I**
Accident Reporting **	**I**	**R**	**R**	**R**	**I**
Right To Know (RTK) **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Safety

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Tool & Equipment Safety **					
Receive Proper Instruction **	**I**	**R**	**R**	**R**	**I**
Proper Intent & Use **	**I**	**R**	**R**	**R**	**I**
Handling & Care **	**I**	**R**	**R**	**R**	**I**
Carrying & Storage **	**I**	**R**	**R**	**R**	**I**
Electrical Cords **	**I**	**R**	**R**	**R**	**I**
Electrical Plugs **	**I**	**R**	**R**	**R**	**I**
Unplug for Adjustments **	**I**	**R**	**R**	**R**	**I**
Water & Electricity **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Safety

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Fire Safety **					
Prevention **	**I**	**R**	**R**	**R**	**I**
Storage Equipment **	**I**	**R**	**R**	**R**	**I**
Storage of Materials **	**I**	**R**	**R**	**R**	**I**
Flammable Materials **	**I**	**R**	**R**	**R**	**I**
Location of Fire Extinguishers **	**I**	**R**	**R**	**R**	**I**
Types of Fires **	**I**	**R**	**R**	**R**	**I**
Fire Alarms **	**I**	**R**	**R**	**R**	**I**
If Your Clothing Catches on Fire ***	**I**	**R**	**R**	**R**	**I**
First Aid **					
Who to Notify **	**I**	**R**	**R**	**R**	**I**
Types of Injuries **	**I**	**R**	**R**	**R**	**I**
Types of Actions to be Taken **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Layout & Measurement

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Measure in 1/16” scale **	**I**	**R**	**R**	**R**	**I**
Bench Rule **	**I**	**R**	**R**	**R**	**I**
Tape Measure **		**I**	**R**	**R**	**I**
Layout Centers with Tape **			**I**	**R**	**I**
Use a 100” Tape **			**I**	**R**	**I**
Use a Folding Rule **			**I**	**R**	**I**
Measuring with Squares **		**I**	**R**	**R**	**I**
Using sliding T-Bevel **		**I**	**R**	**R**	**I**
Using the Tri-Square **	**I**	**R**	**R**	**R**	**I**
Using the Combination Square **	**I**	**R**	**R**	**R**	**I**
Using the Speed Square **			**I**	**R**	**I**
Using the Carpenter Square **			**I**		
Using the For Squaring Operations **	**I**	**R**	**R**	**R**	**I**
To Layout A Rafter **			**I**	**R**	**I**
To Layout a Stair Stringer **			**I**	**R**	**I**
Using a Marking Gauge **		**I**	**R**	**R**	**I**
Using Dividers **		**I**	**R**	**R**	**I**
Using Inside/Outside Calipers **	**I**	**R**			**I**

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SCOPE AND SEQUENCE

Layout and Measurement

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Using Levels **					
2' Shop Level/For Level **		**I**	**R**	**R**	**I**
2' Shop Level/For Plumb **			**I**	**R**	**I**
Using a Line Level **			**I**	**R**	**I**
Using a Torpedo Level **			**I**	**R**	**I**
Using a 4' Level **		**I**	**R**	**R**	**I**
Using a 6' Level **			**I**	**R**	**I**
Using a Level to Slope Drain Pipes **			**I**	**R**	**I**
Using a Level to Slope Flatwork **			**I**	**R**	**I**
Marking & Cutting **					
Using tools to Mark **	**I**	**R**	**R**	**R**	**I**
Use Tools to Square **	**I**	**R**	**R**	**R**	**I**
Making Square Cuts **	**I**	**R**	**R**	**R**	**I**
Making Miter Cuts **		**I**	**R**	**R**	**I**
Making Square Corners **	**I**	**R**	**R**	**R**	**I**
Making Parallel Sides **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Computations

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Add, Subtract, Multiply and Divide Fractions **	**I**	**R**	**R**	**R**	**I**
Decimals **	**I**	**R**	**R**	**R**	**I**
Calculate Area (Square foot) **			**I**	**R**	**I**
Calculate Board Footage **	**I**	**R**	**R**	**R**	**I**
Volume Computation **			**I**	**R**	**I**
The Materials List **	**I**	**R**	**R**	**R**	**I**
Calculate Materials **					
Solo in Square (100 sq. ft.)					
Siding **			**I**	**R**	
Roofing **			**I**	**R**	
Sheet Goods *			**I**	**R**	
Estimate Quantities of **					
Framing Materials **					
Using 12', 16', 19.2' & 24' on Centers			**I**	**R**	

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SCOPE AND SEQUENCE

Wood
Nature & Characteristics

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Parts of a Tree **	**I**	**R**	**R**	**R**	**I**
Cell Structure **	**I**	**R**	**R**	**R**	**I**
Hardwoods/Softwoods **	**I**	**R**	**R**	**R**	**I**
Growth Rings **	**I**	**R**	**R**	**R**	**I**
Characteristics **	**I**	**R**	**R**	**R**	**I**
Properties **	**I**	**R**	**R**	**R**	**I**
Cutting Methods **		**I**	**R**	**R**	**I**
Decorative Features **		**I**	**R**	**R**	**I**
Seasoning **	**I**	**R**	**R**	**R**	**I**
Shrinking of Lumber **	**I**	**R**	**R**	**R**	**I**
Cell Size & Characteristics **	**I**	**R**	**R**	**R**	**I**
Lumber Defects **	**I**	**R**	**R**	**R**	**I**
Species **		**I**	**R**	**R**	**I**
Wood Grading **		**I**	**R**	**R**	**I**
Ordering Lumber **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Plans & Prints

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Blueprint Interpretation **					
6 Views of Orthographic **					
Projection **	**I**	**R**	**R**	**R**	**I**
Pictorials **	**I**	**R**	**R**	**R**	**I**
Perspective **	**I**	**I**	**R**	**R**	**I**
Isometric Drawing **		**I**	**R**	**R**	**I**
Sketching **		**I**	**R**	**R**	**I**
Working Drawing **			**I**	**R**	**I**
Introduce & Learn Construction Symbols **			**I**	**R**	
Framing Symbols **			**I**	**R**	
Using Templates **	**I**	**R**	**R**	**R**	**I**
Using Patterns **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Safe Use of Hand Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Fastening & Prying Tools **					
Hammers **	**I**	**R**	**R**	**R**	**I**
Hatchet **			**I**	**R**	**I**
Staplers **			**I**	**R**	**I**
Leather/Wood/Rubber Mallet **	**I**	**R**	**R**	**R**	**I**
Pliers **	**I**	**R**	**R**	**R**	**I**
Wrenches **	**I**	**R**	**R**	**R**	**I**
Ripping Bar **			**I**	**R**	
Hail Claw **			**I**	**R**	
Wonder/Flat Bar **			**I**	**R**	

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SCOPE AND SEQUENCE

Safe Use of Cutting Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Wood Chisels **		**I**	**R**	**R**	**I**
Saws Rip **	**I**	**R**	**R**	**R**	**I**
Crosscut **	**I**	**R**	**R**	**R**	**I**
Combination **	**I**	**R**	**R**	**R**	**I**
Compass **	**I**	**R**	**R**	**R**	**I**
Key Hole **		**I**	**R**	**R**	**I**
Back Saw **	**I**	**R**	**R**	**R**	**I**
Dove Tail Saw **			**I**	**R**	**I**
Coping Saw **	**I**	**R**	**R**	**R**	**I**
Hack Saw **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Boring & Clamping Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Brace & Bit **		I	R	R	I
Push Drills **		I	R	R	I
Hand Drills **		I	R	R	I
Twist Drills **	I	R	R	R	I
Auger Bits **	I	R	R	R	I
Foersther Bits **		I	R	R	I
Adj. Expansion Drill **			I	R	I
Spade Bits **			I	R	I
Carbide Masonry Bits **			I	R	I
Combination Drills **		I	R	R	I
Bead Point Wood Bit **		I	R	R	I
Hole Saws **			I	R	I
Clamping Tools **					
Wood/Metal Vices **	I	R	R	R	I
C-Clamps **	I	R	R	R	I
Quik-Clamps (TM) **	I	R	R	R	I
Hand Screw **	I	R	R	R	I

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SCOPE AND SEQUENCE

Clamping Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Vice Grip Clamps **		**I**	**R**	**R**	**I**
Bar Clamps **		**I**	**R**	**R**	**I**
Strap Clamps **		**I**	**R**	**R**	**I**
Spring Type Clamps **		**I**	**R**	**R**	**I**
Corner Clamps **	**I**	**R**	**R**	**R**	**I**
Use of Smoothing Tools					
Plans **	**I**	**R**	**R**	**R**	**I**
Scrapers **	**I**	**R**	**R**	**R**	**I**
Rasps **	**I**	**R**	**R**	**R**	**I**
Modern Serrated Forming tools **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Portable Powers Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Portable Circular Saw **					
Types of **		**I**	**I**	**R**	**I**
Sizes of **		**I**	**I**	**R**	**I**
Types of Cuts **		**I**	**I**	**R**	**I**
Types of Materials **		**I**	**I**	**R**	**I**
Types of Blades **		**I**	**I**	**R**	**I**
Changing the Blades **		**I**	**I**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Reciprocating Saw **					
Types of **			**I**	**R**	**I**
Sizes of **			**I**	**R**	**I**
Types of Cuts **			**I**	**R**	**I**
Types of Materials **			**I**	**R**	**I**
Types of Blades **			**I**	**R**	**I**
Changing blades **			**I**	**R**	**I**
Safe Use of **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Portable Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Saber Saw **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Cuts **		**I**	**R**	**R**	**I**
Types of Materials **		**I**	**R**	**R**	**I**
Types of Blades **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Router **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Types of Cuts **	**I**	**R**	**R**	**R**	**I**
Types of Materials **	**I**	**R**	**R**	**R**	**I**
Types and Nomenclature of cutters **	**I**	**R**	**R**	**R**	**I**
Set-up & Use	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Portable Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Biscuit Joiner **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Joints **		**I**	**R**	**R**	**I**
The Biscuit Types/Sizes **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Drills (Pistol) **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
All About Chucks **	**I**	**R**	**R**	**R**	**I**
Uses (Boring Operations) **	**I**	**R**	**R**	**R**	**I**
Uses (Other than Boring) **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Portable Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Screw Shooters **					
Types of (Include AC/DC) **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Uses **	**I**	**R**	**R**	**R**	**I**
Materials (Fasteners) **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**
Palm Sanders **					
Types of Sizes **	**I**	**R**	**R**	**R**	**I**
Changing Abrasives **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**
Belt Sanders **					
Types & Sizes **		**I**	**R**	**R**	**I**
Changing Abrasives **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Stationary Power Tools
Power Plane

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Types of Materials **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Installation of Cutters **			**I**	**R**	**I**
Jointer **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Materials **		**I**	**R**	**R**	**I**
Insulation of Cutters **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Shaper **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Materials **		**I**	**R**	**R**	**I**
Types of Cutters **		**I**	**R**	**R**	**I**
Changing Cutters **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Stationary Power Tools
Bandsaw

DEVELOPMENT SKILLS
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	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Safe Use of **	**I**	**R**	**R**	**R**	
Miter Box Saw **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Cuts **		**I**	**R**	**R**	**I**
Types of Materials **		**I**	**R**	**R**	**I**
Types of Blades **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Frame & Trim Saw (Saw Buck) **					
Types of **			**I**	**R**	
Types of Cuts **			**I**	**R**	
Types of Materials **			**I**	**R**	
Set-up, Take Down, Storage **			**I**	**R**	
Changing Blades **			**I**	**R**	
Safe Use of **			**I**	**R**	
Power Plane **					
Types of **		**I**	**R**	**R**	
Sizes of **		**I**	**R**	**R**	

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SCOPE AND SEQUENCE

The Use of Stationary Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Radial Arm Saw **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Cuts **		**I**	**R**	**R**	**I**
Accessories Other Than Sawing **		**I**	**R**	**R**	**I**
Ripping (Ploughing) **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Table Saw **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Cuts **		**I**	**R**	**R**	**I**
Types of Material Cut **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Band Saw **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Types of Cuts **	**I**	**R**	**R**	**R**	**I**
Types of Materials **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Stationary Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Wood Lath **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Types of Turnings **	**I**	**R**	**R**	**R**	**I**
Types of Materials **	**I**	**R**	**R**	**R**	**I**
Duplicating **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**
Disc Sander **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Changing the Disc **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**
Belt Sander **					
Types of **	**I**	**R**	**R**	**R**	**I**
Sizes of **	**I**	**R**	**R**	**R**	**I**
Changing the Belt **	**I**	**R**	**R**	**R**	**I**
Safe Use of **	**I**	**R**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Stationary Power Tools

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Oscillating Drum Sander **					
Types of **		**I**	**R**	**R**	**I**
Sizes of **		**I**	**R**	**R**	**I**
Types of Sanding Sleeves **		**I**	**R**	**R**	**I**
Changing Sleeves **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Scroll Saw **					
Types & Sizes of **		**I**	**R**	**R**	**I**
Parts of (Nomenclature) **		**I**	**R**	**R**	**I**
Types of Cuts **		**I**	**R**	**R**	**I**
Types of Materials **		**I**	**R**	**R**	**I**
Making Identical Parts **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**
Bench/Pedistal Grinder **					
Types & Sizes of **		**I**	**R**	**R**	**I**
Parts of (Nomenclature) **		**I**	**R**	**R**	**I**
Types of Wheels **		**I**	**R**	**R**	**I**
Safe Use of **		**I**	**R**	**R**	**I**

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SCOPE AND SEQUENCE

Maintenance & Machine Set-Up

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Using Machine Set-Ups **	**I**	**R**	**R**	**R**	**I**
Making Machine Set-Ups **		**I**	**R**	**R**	
Using Fixtures **	**I**	**R**	**R**	**R**	**I**
Making Fixtures **		**I**	**R**	**R**	**I**
Using Templates **	**I**	**R**	**R**	**R**	**I**
Making Templates **		**I**	**R**	**R**	**I**
Performance/Equipment Maintenance **					**I**
Removal/Installation of Cutters **		**I**	**R**	**R**	
Sharpening **			**I**	**R**	
Abrasive Removal/Installation **	**I**	**R**	**R**	**R**	**I**
Lubrication **		**I**	**R**	**R**	
Cleaning **	**I**	**R**	**R**	**R**	**I**
Adjustments **		**I**	**R**	**R**	

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SCOPE AND SEQUENCE

Project Construction

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Building of Projects **	**I**	**R**	**R**	**R**	**I**
Selection & Handling Wood **	**I**	**R**	**R**	**R**	**I**
Design **		**I**	**R**	**R**	**I**
Work with Plans **	**I**	**R**	**R**	**R**	**I**
Following Instructions/Directions **	**I**	**R**	**R**	**R**	**I**
Shaping Components parts **	**I**	**R**	**R**	**R**	**I**
Using Set-Ups/Fixtures **	**I**	**R**	**R**	**R**	**I**
Interchangeable Parts **		**I**	**R**	**R**	**I**
Use Sequential Assembly **		**I**	**R**	**R**	**I**
Individual Projects **	**I**	**R**	**R**	**R**	**I**
Team Projects **			**I**	**R**	**I**
Group Projects **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Construction Materials

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Introduce Concrete **		**I**	**R**	**R**	
Ingredients of Concrete **		**I**	**R**	**R**	
Characteristics of Concrete **		**I**	**R**	**R**	
Uses & Applications **			**I**	**R**	
How to Apply & Finish **			**I**	**R**	
Wood **					
Types of **	**I**	**R**	**R**	**R**	**I**
Composites for Products **	**I**	**R**	**R**	**R**	**I**
Composites for Structures **			**I**	**R**	**I**
Dimension Lumber **	**I**	**R**	**R**	**R**	**I**
Fiberboard **		**I**	**R**	**R**	**I**
Hardboard **		**I**	**R**	**R**	**I**
Laminates **			**I**	**R**	**I**
Laminates Beams & Joist **			**I**	**R**	**I**
Paneling **			**I**	**R**	**I**
OSI Board **			**I**	**R**	**I**
Uses of Metal in Construction **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Construction Materials

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Adhesives **					
Kinds of Adhesives **		**I**	**R**	**R**	**I**
Selecting Adhesives **		**I**	**R**	**R**	**I**
Gluing Procedures **	**I**	**R**	**R**	**R**	**I**
Clamping Devices **	**I**	**R**	**R**	**R**	**I**
Gluing Problems **			**I**	**R**	**I**
Fasteners (Nails) **	**I**	**R**	**R**	**R**	**I**
Sizing System **	**I**	**R**	**R**	**R**	**I**
Types of **	**I**	**R**	**R**	**R**	**I**
Uses & Installation **	**I**	**R**	**R**	**R**	**I**
Fasteners (Screws)	**I**	**R**	**R**	**R**	**I**
Sizing System **	**I**	**R**	**R**	**R**	**I**
Types of **	**I**	**R**	**R**	**R**	**I**
Uses & Installation **	**I**	**R**	**R**	**R**	**I**
Fastener (Other) **		**I**	**R**	**R**	**I**
Nuts & Bolts/Size, Type **		**I**	**R**	**R**	**I**
Framing Anchors/Size, Type **			**I**	**R**	**I**
Specialty **			**I**	**R**	**I**

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SCOPE AND SEQUENCE

Career Planning

DEVELOPMENT SKILLS
***=CORE PROFICIENCY**
****=CONTENT STANDARD**

	Construction Technology I	Construction Technology II	Construction Technology III	Construction Technology IV	Woodworking Explored
Develop Workplace Readiness **	**I**	**R**	**R**	**R**	**I**
Employability/Work Habits **		**I**	**R**	**R**	**I**
Personal Skills & Attitudes **		**I**	**R**	**R**	**I**
Identify Personal Interest **		**I**	**R**	**R**	**I**
Develop Career Plans **			**I**	**R**	**I**
Identify Transferable Skills **		**I**	**R**	**R**	**I**
Selection of Appropriate Courses **	**I**	**R**	**R**	**R**	**I**
Describe Occupational Skills **		**I**	**R**	**R**	**I**
Demonstrate Occupational Skills **			**I**	**R**	**I**
Identify Job Openings **			**I**	**R**	**I**
Prepare A Resume **				**I**	**I**
Develop Interview Skills **			**I**	**R**	**I**

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Suggested Assessment

1. Teacher Observations
2. Class Discussion
3. Class Assignments
4. Question and Answer
5. Objective Test
6. Subjective Test
7. Skills Test
8. Written Test
9. Drawings
10. Student Participation
11. Projects
12. Teacher Review
13. Timing/Drills
14. Class Survey
15. Personal Assessment
16. Essays
17. Open Ended Questions
18. Other_____

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #1 Student will demonstrate knowledge of: <u>demonstrate measurement and calculation techniques related to construction technology</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities 1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	Assessment Strategies 1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	Materials, Technology Resources 1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).16 9.4.12.B.2, 3, 4	Measurement of length in feet and inches (English System) 1. Know the 1/16' scale 2. Use a tape measure, bench rule and folding rule for length measurement 3. Use measurement with the following layout tools: a. Compass b. Centering gauge c. Try square d. Combination square e. Carpenters square f. Marking gauge g. Divers h. Inside and outside calipers	1, 7, 8, 12		
9.4.12.B.(2).16 9.4.12.B.2, 3, 4	Calculate board footage problems	1, 7, 8, 12		
9.4.12.B.(2).16 9.4.12.B.2, 3, 4	Calculate area problems	1, 7, 8, 12		
9.4.12.B.(2).16 9.4.12.B.2, 3, 4	Calculate volume problems	1, 7, 8, 12		
9.4.12.B.(2).16 9.4.12.B.2, 3, 4	Work in scales: 1. Enlarging 2. Reducing	1, 7, 8, 12		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #2 Student will demonstrate knowledge of: <u>to layout and solve basic design problems</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).1, 3, 4 9.4.12.B.1 – 5	Define the fundamentals of good design. 1. Function 2. Appearance 3. Materials 4. Construction	1, 2, 3, 6, 9, 12, 15		
9.4.12.B.(2).1, 3, 4 9.4.12.B.1 – 5	Define the elements of design. 1. Line 2. Shape 3. Mass 4. Color 5. Tone & texture	1, 2, 3, 6, 9, 12, 15		
9.4.12.B.(2).1, 3, 4 9.4.12.B.1 – 5	Define the principles of design. 1. Proportion 2. Balance 3. Harmony 4. Rhythm 5. Emphasis	1, 2, 3, 6, 9, 12, 15		
9.4.12.B.(2).1, 3, 4 9.4.12.B.37	Describe common errors in design	1, 2, 3, 6, 9, 12, 15		
9.4.12.B.(2).1, 3, 4 9.4.12.B.37, 38	List steps involved in designing a building. 1. Need 2. Uses 3. Cost	1, 2, 3, 6, 9, 12, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #2 Student will demonstrate knowledge of: <u>to layout and solve basic design problems</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12. B.(2).1, 3, 4 9.4.12. B.37, 38	Student will be able to make accurate layouts. 1. Geometric constructions 2. Tracing patterns and templates 3. Enlarging and transferring of designs	1, 2, 3, 6, 9, 12, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #3 Student will demonstrate knowledge of: <u>the safe use of hand tools</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities 1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	Assessment Strategies 1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	Materials, Technology Resources 1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.40-46	General safety precautions: 1. Operation position & hand hold 2. Setting down tools 3. Keeping tool sharp 4. No horseplay or running	4, 5, 6, 8, 11, 12, 15		
9.4.12.B.40-46	Hand tool safety precautions: 1. Hand saw 2. Planes 3. Other edge cutting tools 4. Hand drilling & boring tools	4, 5, 6, 8, 11, 12, 15		
9.4.12.B.40-46	Care, storage and sharpening of hand tools	4, 5, 6, 8, 11, 12, 15		
9.4.12.B.40-46	Hand tool nomenclature and identification	4, 5, 6, 8, 11, 12, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #4 Student will demonstrate knowledge of: <u>safe use of portable power tools</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities 1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	Assessment Strategies 1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	Materials, Technology Resources 1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.40-46	General safety precautions 1. Tool & operation position 2. Electrical considerations 3. Storage 4. Adjustments 5. Replaceable cutters & parts 6. Service and maintenance 7. Selection of the proper tool	3, 7, 8, 11, 12, 13, 14, 15		
9.4.12.B.40-46	Portable power tools 1. Router 2. Drills 3. Belt sander 4. Palm sander 5. Saber or bayonet saw 6. Fastening drills	3, 7, 8, 11, 12, 13, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #5 Student will demonstrate knowledge of: <u>safe and correct procedures in machine set-up, operation, and maintenance</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities 1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	Assessment Strategies 1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	Materials, Technology Resources 1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.40-46	Stationary machine tool safety precautions for the following machines: 1. Band saw 2. Belt sander 3. Disc sander 4. Wood lath 5. Stationary routing equipment	1, 3, 5, 7, 10, 11, 12, 15		
9.4.12.B.40-46	The operation of the above named machines	1, 3, 5, 7, 10, 11, 12, 15		
9.4.12.B.40-46	Maintenance of the above named machines: 1. Preventive 2. Inspection & testing 3. Cleaning 4. Adjusting 5. Lubrication 6. Corrective: repair 7. Trouble shooting 8. Replacement parts 9. Safety hazards 10. Electrical 11. Frayed cords 12. Improper grounding	1, 3, 5, 7, 10, 11, 12, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #6 Student will demonstrate knowledge of: <u>master the skills necessary in project fabrication</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B..72 - 75	The use of plans and drawings to: 1. Cut & shape component parts 2. Preassembly finishing	5, 6, 7, 8, 10, 11, 12, 14, 15		
9.4.12.B..72 - 75	The use of assembly drawing to: 1. Assemble component parts 2. Use assembly aids 3. Clamping devices 4. Holding devices 5. Adhesives and gluing procedures	5, 6, 7, 8, 10, 11, 12, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #7 Student will demonstrate knowledge of: <u>use a variety of construction materials</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.72 - 75	Types of construction materials – describing types of uses of : 1. Woods 2. Hardwoods 3. Softwoods 4. Parts of a tree 5. Metals 6. Plastics 7. Composites & by products	2, 5, 6, 7, 11, 15		
9.4.12.B.72 - 75	The student will be able to understand standards materials sizes and grading: 1. Wood boards and construction lumber 2. Sheet goods 3. Grading systems	2, 5, 6, 7, 11, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #8 Student will demonstrate knowledge of: identify and use a variety of fasteners and hardware

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.1, 72 - 75	The student will recognize the kinds and styles of hardware: 1. Examples of 2. Early American 3. Traditional, Contemporary, French, Italian or Spanish Specialized hardware for: 1. Doors 2. Windows 3. Furniture	3, 4, 5, 6, 7, 10, 11, 12		
9.4.12.B.1,72 - 75	The student will be able to recognize select and use fasteners for holding parts: 1. Nails a. Types of materials b. Types of nails c. Sizing system (penny) d. Specialty nails e. Nailing tools and aids f. Nailing techniques g. Screws 2. Characteristics of a. Holding power b. Types of c. Types of materials d. Types of heads e. Applications f. Screw sizing	3, 4, 5, 6, 7, 10, 11, 12		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #8 Student will demonstrate knowledge of: <u>identify and use a variety of fasteners and hardware</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.1.72 - 75	3. Installation tools 4. Screwing techniques 5. Specialty fasteners 6. Hollow wall 7. Drywall 8. Masonry 9. Riveting 10. Conventional II. Pop-riveting 1. Miter joint fasteners 2. Corrugated fasteners 3. Hander screw 4. Tee nuts Repair plates	3, 4, 5, 6, 7, 10, 11, 12		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #9 Student will demonstrate knowledge of: <u>needed construction technology safety</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.40-46	The student will be able to identify the two main topics of safety: 1. Protection against personal injury 2. Prevention of damage to tools, equipment and machines	2, 3, 4, 5, 8, 12, 13		
9.4.12.B.40-46	The student will demonstrate the ability to dress safely: 1. Eye protection 2. Proper type and fit of clothing 3. Protection of feet 4. Removal of jewelry 5. Loose/long hair	2, 3, 4, 5, 8, 12, 13		
9.4.12.B.40-46	The student will apply general safe work habits: 1. Obtain instructors approval as needed 2. Learn to stop, think and ask for help 3. Observe safety rules for each tool and machine 4. Observe safety rules for shop materials 5. Handle waste & scrap properly 6. Practice and promote safety with other students and staff	2, 3, 4, 5, 8, 12, 13		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #9 Student will demonstrate knowledge of: <u>needed construction technology safety</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.40-46	The student shall demonstrate the proper procedures to follow in the event of an accident	2, 3, 4, 5, 8, 12, 13		
9.4.12.B.40-46	The student will demonstrate knowledge of fire prevention by: 1. Learn the location of fire alarms 2. Learn the location of fire protection equipment 3. Learn how to prevent spontaneous combustion 4. Learn the proper use and storage of flammable materials	2, 3, 4, 5, 8, 12, 13		
9.4.12.B.40-46	RTL, RIGHT TO KNOW LAW	2, 3, 4, 5, 8, 12, 13		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #10 Student will demonstrate knowledge of: <u>understand and participate in shop good housekeeping</u>

Content Standard CPI	**Established Goals Content Objectives Measurable Skills**	**Suggested Instructional Strategies/Activities**	**Assessment Strategies**	**Materials, Technology Resources**
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).1 2, 13 9.4.12.B.40-46	Student will work in the following areas of housekeeping: 1. Floors 2. Bench tops 3. Proper tool storage 4. Proper material storage 5. Proper project storage 6. Safety glass storage	1, 2, 3, 10, 12, 13, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #11 Student will demonstrate knowledge of: develop career planning and workplace readiness

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities 1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	Assessment Strategies 1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	Materials, Technology Resources 1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.3.12.C.1 – 9 9.4.12.B.65, 68	The student will be able to define a variety of vocational and skilled occupations, such as: 1. Cabinet maker 2. Millman 3. Carpenter 4. Crafter 5. Pattern maker 6. Construction workers	1, 2, 3, 4, 5, 6, 7, 10, 12, 13, 14, 15		
9.3.12.C.1 – 9 9.4.12.B.65, 68	The student will be able to define professional and semi-professional occupations, such as: 1. Interior designer 2. Industrial arts teacher 3. Supervisor/management positions 4. Sales 5. Forestry 6. Industrial design 7. Engineering 8. Architect	1, 2, 3, 4, 5, 6, 7, 10, 12, 13, 14, 15		
9.3.12.C.1 – 9 9.4.12.B.65, 68	The student will recognize entry level skills needed in construction technology areas	1, 2, 3, 4, 5, 6, 7, 10, 12, 13, 14, 15		
9.3.12.C.1 – 9 9.4.12.B.65, 68, 71	The student shall be able to analyze and discuss the workplace, salary, benefits, and availability of construction careers	1, 2, 3, 4, 5, 6, 7, 10, 12, 13, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #12 Student will demonstrate knowledge of: <u>recognize and apply self management skills</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).5 – 9 9.4.12.B.70	Students will be expected to accept responsibility for their own learning and understanding. Expectation for performance. Students will be able to: 1. Set short and long term goals 2. Self evaluation 3. Help others and accept help	2, 4, 10, 12, 14, 15		
9.4.12.B.(2).5 – 9 9.4.12.B.24-34	Students are also expected t o demonstrate positive work habits, ethics, and the ability to work with others, such as: 1. Study skills 2. Interrelate ability, effort and achievement	2, 4, 10, 12, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #13 Student will demonstrate knowledge of: describe construction technology

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).1 – 8 9.4.12.B.24-34	Student shall receive an introductory exposure to the construction of products both large and small. This information will reflect: 1. Tools, skills, and technology needed to meet basic needs 2. The specialization of skills 3. Construction and the economy 4. On site and off site construction	2, 3, 4, 6, 10, 13, 14, 15		

MONROE TOWNSHIP PUBLIC SCHOOLS INSTRUCTIONAL PLAN

Focus Topic #14 Student will demonstrate knowledge of: <u>explain the basic procedures for making a construction project</u>

Content Standard CPI	Established Goals Content Objectives Measurable Skills	Suggested Instructional Strategies/Activities	Assessment Strategies	Materials, Technology Resources
		1. Problem Based Learning 2. Teacher Directed 3. Study Groups 4. Technology 5. Demonstration 6. Cooperative Groups 7. Literature Circles 8. Participation & Discussion 9. Reading 10. Application 11. Lab (report) 12. Homework 13. Field Trip 14. Projects 15. Other (explain)	1. Multiple Choice 2. Essay 3. Fill-In-Blanks 4. Academic Prompts 5. Writing Samples 6. Lab Report 7. Problem Solving 8. Oral Presentation 9. Self-Assessment 10. Class Survey 11. Rubrics 12. Reflective Discussion 13. Performance Tasks 14. Teacher Observation 15. Portfolio 16. Other (explain)	1. Textbooks 2. Technology Software 3. Technology Hardware 4. Graphic Organizers 5. AVA/Video 6. Primary Sources 7. Resource People 8. Internet Resources
9.4.12.B.(2).5 – 9 9.4.12.M.(2).4	Students will be able to describe types of construction projects: 1. Types of structures 2. Highways 3. Airports 4. Buildings 5. Tunnels 6. Bridges 7. Dams	1, 2, 5, 7, 9, 10, 11, 12, 14, 15		
9.4.12.B.(2).5 – 9 9.4.12.M.(2).4	Students will investigate the decision to build and the designing of the project. The following procedures are explored: 1. Site preparation 2. Foundation 3. The super structure 4. Utilities 5. Finish work	1, 2, 5, 7, 9, 10, 11, 12, 14, 15		

Resource

Textbook

(25 copies available in shop class)

Feirer, John L.
Furniture and Cabinet Making
Glencoe Publishing Co., Mission Hills, CA 1983

Supplementary Text:

(available in Industrial Arts office)

Nelson, John A.
The Weekend Worker
Rodale Press, Emmaus, PA, 1990

Hutching, Gilbert R.
Feirer, John L.
Bennett Publishing Co., Peoria, ILL, 1983

Supplementary Text:

(available in High School Media Center)

VT 234 Del Stubbs
Bowl Turning

VT 233 Jim Cummins
Small Shop Projects

Supplementary Text:

(available in Industrial Arts Office)

Fales, James F.
Construction Technology Today and Tomorrow
Glencoe/ McGraw Hill 1991
Peoria, ILL. 61615-2190

Gloucester Country Consortium Technology Plan 1996

N.J. Core Curriculum Content Standards May 1996