

Industrial Essentials Scope and Sequence

- I. Introduction to Technology
 - a. Exploring Technology
 - b. Problem Solving
 - c. Technology Systems
- II. Communication Technology
 - a. Communication Systems
 - b. Computers
 - c. Telecommunication
 - d. Graphic Communication
- III. Manufacturing Technology
 - a. Manufacturing Systems
 - b. Product Development
 - c. Product and Marketing
- IV. Drafting Fundamentals and Standards
 - a. Drafting Geometry
 - b. Lettering
 - c. Freehand Sketching
 - d. Drafting Tools and Equipment
 - e. Pictorial, Isometric, and Oblique Drawings
 - f. Dimensioning
 - g. Sectional and Auxiliary Views
- V. Woodworking Fundamentals
 - a. Project Design
 - b. Working Drawings
 - c. Planning the Work
 - d. Basic Woodworking and Tool Use
 - e. Properties of Wood
 - f. Cutting and Shaping Stock
 - g. Making Wood Joints
 - h. Clamps, Fasteners, and Adhesives
 - i. Preparation and Finishing of Projects
 - j. Manufactured Lumber and Forest Projects
 - k. Wood Product and Manufacturing Careers
- VI. Transportation Systems
 - a. History and Development
 - b. Types and Modes of Transportation
 - c. Intermodal Transportation
 - d. Product Transportation
 - e. Power of Transportation
- VII. Energy Utilization
 - a. Power Generation
 - b. Power Distribution
 - c. Power Adaptation to Society

- d. Lasers and Thermodynamics
 - e. Magnetism and Semiconductors
 - f. Robots
- VIII. Technology Careers
- a. Transportation
 - b. Industrial Development
 - c. Communication
 - d. Production
 - e. Energy Utilization