

# Exploring Woodworking

Grade 9+

1 Credit

based on *Exploring Woodworking*, 9th Edition ©2024

This basic course introduces practical woodworking skills and tools. The textbook discusses types and uses of wood; safety; hand tools and portable and stationary power tools; manufacturing and careers in woodworking; and project planning, construction, assembly, preparation for finishing, and finishing. For the last unit, the student designs and constructs a project.

| LightUnit 1                                                                                                                                                                                              | LightUnit 2                                                                                                                                                                                        | LightUnit 3                                                                                                                                                                                                                                              | LightUnit 4                                                                                                                                                                                                       | LightUnit 5                                                                                               |
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| <b>Materials in Woodworking</b><br>Wood in Our Environment<br>The Lumber Industry<br>Woods: Kinds, Uses, and Identification<br><br><b>Math Skills</b><br>Numbers and Quantity<br>Measurement<br>Geometry | <b>Woodworking Safety</b><br>General Safety<br>Hand and Power Tool Safety<br>Chemical and Fire Safety<br><br><b>Project Selection and Planning</b><br>Selecting a Project<br>Planning Your Project | <b>Hand Tools</b><br>Measuring and Layout Tools<br>Handsaws<br>Hand Planes<br>Shaping Tools                                                                                                                                                              | <b>Portable Power Tools</b><br>Portable Electric Drills<br>Portable Circular Saws and Power Miter Saws<br>Portable Saber Saws<br>Portable Routers<br>Portable Planers<br>Portable Sanders                         | <b>Power Woodworking Machines</b><br>Table Saw<br>Band Saw<br>Scroll Saw<br>Radial Arm Saw<br>Drill Press |
| LightUnit 6                                                                                                                                                                                              | LightUnit 7                                                                                                                                                                                        | LightUnit 8                                                                                                                                                                                                                                              | LightUnit 9                                                                                                                                                                                                       | LightUnit 10                                                                                              |
| <b>Power Woodworking Machines</b><br>Jointer<br>Planer/Surfacer<br>Wood Lathe<br>Shaper<br>Belt, Disc, Spindle, and Drum Sanders                                                                         | <b>Project Construction and Assembly</b><br>Wood Joints<br>Adhesives<br>Clamps<br>Mechanical Fasteners<br>Laminating and Bending Wood<br>Application of Veneers and Plastic Laminates              | <b>Preparation for Finishing</b><br>Removing Glue and Repairing Defects<br>Smoothing Wood by Scraping<br>Sanding<br><br><b>Wood Finishing and Hardware</b><br>Supplies and Equipment<br>Stains, Sealers, and Fillers<br>Finishing Techniques<br>Hardware | <b>Woodworking Manufacturing</b><br>Automated Manufacturing Processes<br>Entrepreneurship<br>Setting Up and Managing a Manufacturing Enterprise<br><br><b>Careers in Woodworking Industries and Related Areas</b> | <b>Woodworking Project</b>                                                                                |