

**Elizabethtown Area School District
Scope & Sequence - Quick Reference**



Department: Applied Engineering & Technology Education, 18 Weeks

Course: Manufacturing Technology

Grade Level(s): 10-12

<i>Unit Title</i>	<i>General Topic(s)</i>	<i>Pacing</i>
1. Introduction To Manufacturing	<ul style="list-style-type: none"> ● History Of Manufacturing ● The Manufacturing Systems ● Materials & Processes ● Lean Manufacturing 	1 Week
2. The Manufacturing System	<ul style="list-style-type: none"> ● Manufacturing Management Organizational Structure ● Job Application and Skills Examination ● Product Research & Development 	2 Weeks
3. Safety	<ul style="list-style-type: none"> ● General Lab Safety ● Personal Protective Equipment (PPE) ● Machine Specific Safety ● Lab Maintenance 	1 Week
4. Materials & Processes: Wood	<ul style="list-style-type: none"> ● Selecting and Sequencing Operations ● Constructing A Prototype ● Factory Layout and Planning ● Tool Design ● Woodworking Materials and Processes ● Manufacturing Production 	5 Weeks

	<ul style="list-style-type: none"> ● Package Design 	
5. Materials & Processes: Sheet Metal	<ul style="list-style-type: none"> ● Pattern Development ● Transferring Patterns and Creating Layouts ● Cutting and Bending Sheet Metal Tools and Processes ● Joining Sheet Metal Methods and Processes ● Preparation and Finishing of Sheet Metal 	4 Weeks
6. Materials & Processes: Plastics & Polymers	<ul style="list-style-type: none"> ● Introduction To Plastics Industry ● Basic Chemistry of Polymers ● Plastic Materials & Processes ● Thermoplastic Recycling Codes ● Plastic Manufacturing Methods ● Working With Acrylics 	5 Weeks