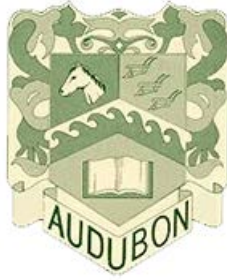


# Audubon Public Schools



## **AHS Woodshop I Curriculum Guide**

Developed by:

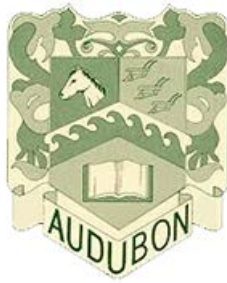
Mr. Michael Stubbs

Mr. Dustin Stiles

September 28, 2019

## Table of Contents

Cover Page	Page 1
Table of Contents	Page 2
Course Description	Page 3
Course Pacing	Page 4
Unit 1	Page 5
Unit 2	Page 7
Unit 3	Page 10
Unit 4	Page 12
Appendix A: Resources	Page 14
Appendix B: Assessments	Page 14
Appendix C: Sample Interdisciplinary Units	Page 15



## **Course Description**

### Woodshop I

This course involves: care and use of hand tools, bench work, the construction and application of wood joints, drawer construction and other basic fundamentals of cabinetry.

**Audubon High School**  
**Curriculum Pacing Chart**

**Woodshop I**

<b>SUGGESTED TIME ALLOTMENT</b>	<b>UNIT NUMBER</b>	<b>CONTENT - UNIT OF STUDY</b>
9 weeks	I	Paper Towel Holder
18 weeks	II	End Table/Mantel Clock
6 weeks	III	Footstool/Dovetail Box
2 week	IV	Cutting Board/Name Plate

AUDUBON HIGH SCHOOL

UNIT I: Paper Towel Holder

ENDURING UNDERSTANDINGS		ESSENTIAL QUESTIONS	
<p>How to safely navigate the woodshop environment. How to produce a product safely in the woodshop.</p>		<ul style="list-style-type: none"> <li>● How do I use the machines in the shop?</li> <li>● How do we measure out the wood?</li> <li>● What kind of wood are we using?</li> <li>● What is a wood joint?</li> <li>● How do I make this project safely?</li> </ul>	
KNOWLEDGE	SKILLS	NJCCCS & CTES	
<p>Students will know:</p> <p>How to work in the woodshop safely. The names of all the machines in the woodshop by name and what they are used for. How the names of basic hand tools used in the woodshop. The difference between hardwood and softwood. How does wood stock come to us from the mill. What is the difference between Rough stock, S2S, and S4S stock. How to get the most out of a board. What the three parts of a board are called. The difference between cross cutting and ripping. The difference between rough cutting and finishing cutting. What a Rabbit joint is used for. What a Dado joint is used for. The difference between 80, 100, and 120 grit sandpaper. When to use the next grit sandpaper. The steps to applying a good quality finish.</p>	<p>Students will be able to:</p> <p>Safely use basic hand tools. Safely use the bandsaw. Safely use the jointer. Safely use the drill press Safely use the router table. How to sand a board. How to rough cut and finish cut. Layout and cut a Rabbet Joint Layout and cut a Dado Joint How to apply Stain. How to apply Washcoat How to apply Deft How to apply Wax The step to applying Stain, Washcoast, Deft, and Wax</p>	<p><u>NJCCC Technology:</u> 8.2.12.A.1-3 8.2.12.B.1-5 8.2.12.C.1-7 8.2.12.D.1-7</p> <p><u>CTES:</u> 9.3.MN-HSE.1 9.3.MN-MIR.1-2 9.3.MN-PPD.1-2 9.3.MN-PRO.5</p>	

AUDUBON HIGH SCHOOL

UNIT I: Paper Towel Holder

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
9 Weeks	<p>Woodshop Safety</p> <p>Basic skills with woodshop hand tools and machinery</p> <p>Manufacturing a material from raw to finished product</p>	<p><u>Resources:</u></p> <p>Teacher generated handout, Demonstrations</p> <p><u>Suggested Activities:</u></p> <p>Safety quiz on all machinery used, Journals, and Participation</p>

**Differentiation**

504	<ul style="list-style-type: none"> <li>● preferential seating</li> <li>● extended time on tests and assignments</li> <li>● reduced homework or classwork</li> <li>● verbal, visual, or technology aids</li> </ul>	<ul style="list-style-type: none"> <li>● modified textbooks or audio-video materials</li> <li>● behavior management support</li> <li>● adjusted class schedules or grading</li> <li>● verbal testing</li> </ul>
Enrichment	<ul style="list-style-type: none"> <li>● Utilize collaborative media tools</li> <li>● Provide differentiated feedback</li> <li>● Opportunities for reflection</li> </ul>	<ul style="list-style-type: none"> <li>● Encourage student voice and input</li> <li>● Model close reading</li> <li>● Distinguish long term and short term goals</li> </ul>
IEP	<ul style="list-style-type: none"> <li>● Utilize “skeleton notes” where some required information is already filled in for the student</li> <li>● Provide access to a variety of tools for responses</li> <li>● Provide opportunities to build familiarity and to practice with multiple media tools</li> <li>● Graphic organizers</li> </ul>	<ul style="list-style-type: none"> <li>● Leveled text and activities that adapt as students build skills</li> <li>● Provide multiple means of action and expression</li> <li>● Consider learning styles and interests</li> <li>● Provide differentiated mentors</li> </ul>
ELLs	<ul style="list-style-type: none"> <li>● Pre-teach new vocabulary and meaning of symbols</li> <li>● Embed glossaries or definitions</li> <li>● Provide translations</li> <li>● Connect new vocabulary to background knowledge</li> </ul>	<ul style="list-style-type: none"> <li>● Provide flash cards</li> <li>● Incorporate as many learning senses as possible</li> <li>● Portray structure, relationships, and associations through concept webs</li> <li>● Graphic organizers</li> </ul>
At-risk	<ul style="list-style-type: none"> <li>● Purposeful seating</li> <li>● Counselor involvement</li> <li>● Parent involvement</li> </ul>	<ul style="list-style-type: none"> <li>● Contracts</li> <li>● Alternate assessments</li> <li>● Hands-on learning</li> </ul>

### 21st Century Skills

- Creativity
- Innovation
- Critical Thinking

- Problem Solving
- Communication
- Collaboration

### Integrating Technology

- Chromebooks
- Internet research
- Online programs

- Virtual collaboration and projects
- Presentations using presentation hardware and software

## AUDUBON HIGH SCHOOL

### UNIT II: End Table

ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
<p>Students will continue to expand their knowledge of the woodshop and the machinery in a safe manner.</p>	<ul style="list-style-type: none"> <li>● What does square mean?</li> <li>● What is a disc sander?</li> <li>● What is a router used for?</li> <li>● What is stain?</li> <li>● What is washcoat?</li> <li>● What is Deft?</li> <li>● What is a planer?</li> </ul>



KNOWLEDGE	SKILLS	NJCCCS & CTES
<p>Students will know:</p> <p>The difference between cross cutting and ripping.  The difference between rough cutting and finishing cutting.  What an Endlap joint is used for.  What a Button Dowel is used for  How to use a dovetail jig.  How to use a power miter saw  The difference between a sliding miter saw and a compound miter saw.  How to use a sliding miter saw  What is a face frame.  How is a drawer put together  How to face glue  What is the difference between solid wood and plywood.  When to use plugs and how to use them.</p> <p>The difference between 80, 100, and 120 grit sandpaper.  How to use a handheld router  How to glue up a large panel  The steps to applying a good quality finish.</p>	<p>Students will be able to:</p> <p>Safely use a surface planer  Safely use a power miter box  Safely use an oscillating spindle sander  Safely use a disc sander  Edge glue a panel together with the use of bar clamps  Safely use a dovetail jig  Safely use a button dowel jig  Safely use a hand held router  Make a drawer.  Identified the difference between plywood and solid wood</p>	<p><u>NJCCCS Technology:</u>  8.2.12.A.1-3  8.2.12.B.1-5  8.2.12.C.1-7  8.2.12.D.1-7</p> <p><u>CTES:</u>  9.3.MN-HSE.1  9.3.MN-MIR.1-2  9.3.MN-PPD.1-2  9.3.MN-PRO.5</p>

AUDUBON HIGH SCHOOL

UNIT II: End Table

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
18 Weeks	<p>Woodshop Safety</p> <p>Advanced skills with woodshop hand tools and machinery</p> <p>Manufacturing a material from raw to finished product</p>	<p><u>Resources:</u></p> <p>Teacher generated handout, Demonstrations</p> <p><u>Suggested Activities:</u></p> <p>Safety quiz on all machinery used, Journals, and Participation</p>

**Differentiation**

504	<ul style="list-style-type: none"> <li>● preferential seating</li> <li>● extended time on tests and assignments</li> <li>● reduced homework or classwork</li> <li>● verbal, visual, or technology aids</li> </ul>	<ul style="list-style-type: none"> <li>● modified textbooks or audio-video materials</li> <li>● behavior management support</li> <li>● adjusted class schedules or grading</li> <li>● verbal testing</li> </ul>
Enrichment	<ul style="list-style-type: none"> <li>● Utilize collaborative media tools</li> <li>● Provide differentiated feedback</li> <li>● Opportunities for reflection</li> </ul>	<ul style="list-style-type: none"> <li>● Encourage student voice and input</li> <li>● Model close reading</li> <li>● Distinguish long term and short term goals</li> </ul>
IEP	<ul style="list-style-type: none"> <li>● Utilize “skeleton notes” where some required information is already filled in for the student</li> <li>● Provide access to a variety of tools for responses</li> <li>● Provide opportunities to build familiarity and to practice with multiple media tools</li> <li>● Graphic organizers</li> </ul>	<ul style="list-style-type: none"> <li>● Leveled text and activities that adapt as students build skills</li> <li>● Provide multiple means of action and expression</li> <li>● Consider learning styles and interests</li> <li>● Provide differentiated mentors</li> </ul>
ELLs	<ul style="list-style-type: none"> <li>● Pre-teach new vocabulary and meaning of symbols</li> <li>● Embed glossaries or definitions</li> <li>● Provide translations</li> <li>● Connect new vocabulary to background knowledge</li> </ul>	<ul style="list-style-type: none"> <li>● Provide flash cards</li> <li>● Incorporate as many learning senses as possible</li> <li>● Portray structure, relationships, and associations through concept webs</li> <li>● Graphic organizers</li> </ul>
At-risk	<ul style="list-style-type: none"> <li>● Purposeful seating</li> <li>● Counselor involvement</li> <li>● Parent involvement</li> </ul>	<ul style="list-style-type: none"> <li>● Contracts</li> <li>● Alternate assessments</li> <li>● Hands-on learning</li> </ul>

## 21st Century Skills

- Creativity
- Innovation
- Critical Thinking

- Problem Solving
- Communication
- Collaboration

## Integrating Technology

- Chromebooks
- Internet research
- Online programs

- Virtual collaboration and projects
- Presentations using presentation hardware and software

### AUDUBON HIGH SCHOOL

#### Unit III: Foot Stool

ENDURING UNDERSTANDINGS		ESSENTIAL QUESTIONS	
Students will continue to expand their knowledge of the woodshop and the machinery in a safe manner.		<ul style="list-style-type: none"> <li>● What is a pocket hole joint?</li> <li>● How much wood do I need?</li> <li>● What are the dimensions of the foot stool?</li> </ul>	
KNOWLEDGE	SKILLS		NJCCCS & CTES

<p>Students will know:</p> <p>How to read project plans.          What is a pocket whole jig          How to use craigs screws          How to use the CNC router          What is a CNC router</p>	<p>Students will be able to:</p> <p>Safely complete their project using the knowledge and skills they were previously taught.          Safely produce a high quality product.          Safely be able to use a craig screw jig          Safely be able to use the CNC router</p>	<p><u>NJCCC Technology:</u>          8.2.12.A.1-3          8.2.12.B.1-5          8.2.12.C.1-7          8.2.12.D.1-7</p> <p><u>CTES:</u>          9.3.MN-HSE.1          9.3.MN-MIR.1-2          9.3.MN-PPD.1-2          9.3.MN-PRO.5</p>
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AUDUBON HIGH SCHOOL

Unit III: Foot Stool

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 Weeks	Woodshop Safety  Advanced skills with woodshop hand tools and machinery  Manufacturing a material from raw to finished product	<p style="text-align: center;"><u>Resources:</u></p> Teacher generated handout, Demonstrations  <p style="text-align: center;"><u>Suggested Activities:</u></p> Safety quiz on all machinery used, Journals, and Participation

## Differentiation

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Enrichment	<ul style="list-style-type: none"> <li>● Utilize collaborative media tools</li> <li>● Provide differentiated feedback</li> <li>● Opportunities for reflection</li> </ul>	<ul style="list-style-type: none"> <li>● Encourage student voice and input</li> <li>● Model close reading</li> <li>● Distinguish long term and short term goals</li> </ul>
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<b>21st Century Skills</b>		
<ul style="list-style-type: none"> <li>● Creativity</li> <li>● Innovation</li> <li>● Critical Thinking</li> </ul>		<ul style="list-style-type: none"> <li>● Problem Solving</li> <li>● Communication</li> <li>● Collaboration</li> </ul>
<b>Integrating Technology</b>		
<ul style="list-style-type: none"> <li>● Chromebooks</li> <li>● Internet research</li> <li>● Online programs</li> </ul>		<ul style="list-style-type: none"> <li>● Virtual collaboration and projects</li> <li>● Presentations using presentation hardware and software</li> </ul>

AUDUBON HIGH SCHOOL

UNIT IV: Cutting Board

<b>ENDURING UNDERSTANDINGS</b>		<b>ESSENTIAL QUESTIONS</b>	
Students will continue to expand their knowledge of the woodshop and the machinery in a safe manner.		<ul style="list-style-type: none"> <li>● What is wood glue?</li> <li>● What is a CNC machine?</li> <li>● How does the CNC machine work?</li> </ul>	
<b>KNOWLEDGE</b>	<b>SKILLS</b>		<b>NJCCCS &amp; CTES</b>



<p>Students will know:</p> <p>How to use wood glue and filler in a proper way.  How a CNC uses mechanical drawings and converts them into a mathematical equation to produce a product.  How machines like the CNC machine are shaping the future of woodworking</p>	<p>Students will be able to:</p> <p>Safely cut and glue their cutting board properly  Use the CNC machine to make a custom design for their cutting board</p>	<p><u>NJCCC Technology:</u>  8.2.12.A.1-3  8.2.12.B.1-5  8.2.12.C.1-7  8.2.12.D.1-7</p> <p><u>CTES:</u>  9.3.MN-HSE.1  9.3.MN-MIR.1-2  9.3.MN-PPD.1-2  9.3.MN-PRO.5</p>
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AUDUBON HIGH SCHOOL

UNIT IV: Cutting Board

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
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3 Week	<p>Woodshop Safety</p> <p>Advanced skills with woodshop hand tools and machinery</p> <p>Manufacturing a material from raw to finished product</p> <p>Exploring the use of a CNC machine in the workshop</p>	<p><u>Resources:</u></p> <p>Teacher generated handout, Demonstrations</p> <p><u>Suggested Activities:</u></p> <p>Safety quiz on all machinery used, Journals, and Participation</p>
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<b>21st Century Skills</b>		
<ul style="list-style-type: none"> <li>● Creativity</li> <li>● Innovation</li> <li>● Critical Thinking</li> </ul>	<ul style="list-style-type: none"> <li>● Problem Solving</li> <li>● Communication</li> <li>● Collaboration</li> </ul>	

## Integrating Technology

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>● Chromebooks</li><li>● Internet research</li><li>● Online programs</li></ul> | <ul style="list-style-type: none"><li>● Virtual collaboration and projects</li><li>● Presentations using presentation hardware and software</li></ul> |
|---|---|

### AUDUBON HIGH SCHOOL

#### APPENDIX A

##### SOFTWARE NAMES:

- VCarve
- Google Classroom

#### APPENDIX B

##### ASSESSMENT:

##### LIST OF ASSESSMENT/TYPE:

Journal (10% of grade)  
Projects (45% of grade)  
Classroom Participation ( 25%of grade)  
Machine Safety Test (10% of grade)

Clean up Job (10% of grade)

## APPENDIX C

### SAMPLE INTERDISCIPLINARY UNITS

The wood shop classes could match easily with math classes in a sense where measurement is crucial to the production of a quality product. The class would also match well with the CAD classes with the introduction of the CNC machine.