

**Course:** *Woodworking 2*  
**Unit # 4:** *Finishing Process*

**Year of Implementation:** 2024-2025

**Curriculum Team Members** {*Michael Johnston* [mjohnston1@lrhsd.org](mailto:mjohnston1@lrhsd.org), *Jim Scott* [jscott@lrhsd.org](mailto:jscott@lrhsd.org), *Mike Robinson* [mrobinson@lrhsd.org](mailto:mrobinson@lrhsd.org), *Kevin Dybalski* [kdybalski@lrhsd.org](mailto:kdybalski@lrhsd.org)}

### Stage One - Desired Results

**Link(s) to New Jersey Student Learning Standards for this course:**

*{provide all applicable links to standards here}*

<https://www.state.nj.us/education/cccs/2020/>

- **Unit Standards:** *(keep each of the following headings in place)*
  - **Content Standards**
    - List all content-specific standards that apply to this unit here
  - **21st Century Life & Career Standards**
    - All curriculum writers/revisionists need to include standards that apply to “Career Readiness, Life Literacies, and Key Skills”. This should include a brief description of the standard and the standard number. Document only those standards and practices that apply to each unit. Use the following link to assist you [see pages of 31-36; 41-42; 53-56 for specific standard #'s and strands]  
<https://www.state.nj.us/education/cccs/2020/2020%20NJSLs-CLKS.pdf>
  - **English Companion Standards**
    - List grade-level appropriate companion standards for History, Social Studies, Science and Technical Subjects (CTE/Arts) 9-12. English Companion Standards are required only in these subject/content areas. This section can be deleted for all other content areas.
    - Grade 9-10 Companion Standards:  
[https://www.nj.gov/education/standards/ela/Docs/2016NJSLS-ELA\\_Companion9-10.pdf](https://www.nj.gov/education/standards/ela/Docs/2016NJSLS-ELA_Companion9-10.pdf)
    - Grade 11-12 Companion Standards:  
[https://www.nj.gov/education/standards/ela/Docs/2016NJSLS-ELA\\_Companion11-12.pdf](https://www.nj.gov/education/standards/ela/Docs/2016NJSLS-ELA_Companion11-12.pdf)
  - **Interdisciplinary Content Standards**
    - List any standards from other content areas that apply to this unit.

- ***NJ Statutes:*** NJ State law mandates the inclusion of the following topics in lesson design and instruction as aligned to elementary and secondary curriculum.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A. 18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Diversity and Inclusion ([N.J.S.A. 18A:35-4.36a](#)) A board of education shall incorporate instruction on diversity and inclusion in an appropriate place in the curriculum of students in grades kindergarten through 12 as part of the district's implementation of the New Jersey Student Learning Standards.

Asian American and Pacific Islanders (AAPI) [P.L.2021, c.410](#) Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLs) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416)

For additional information, see

**NJ Amistad Curriculum:** <https://www.nj.gov/education/amistad/about/>

**Diversity and Inclusion:** <https://www.nj.gov/education/standards/dei/index.shtml>

- (Sample Activities/ Lessons): <https://www.nj.gov/education/standards/dei/samples/index.shtml>

**Asian American and Pacific Islanders:**

- [Asian American and Pacific Islander Heritage and History in the U.S.](#)

*A Teacher's Guide from EDSITEment offering a collection of lessons and resources for K-12 social studies, literature and arts classrooms that center around the experiences, achievements and perspectives of Asian Americans and Pacific Islanders across U.S. history.*

**Transfer Goal:** Students will be able to describe what type of finish should be applied to their project depending on its use.

As aligned with LRHSD Long Term Learning Goal(s): <https://www.lrhdsd.org/Page/6163>

1. **acquire, integrate, and apply design processes and essential technical skills to solve problems, create products, and improve the quality of life for our local and global community**

Enduring Understandings {use Arial 11 font}

Students will understand that. . .

*EU 1*

Some types of finish are used for wood materials that may come in contact with food.

*EU 2*

Some types of finishes are used to change the color of your lumber.

*EU3*

Essential Questions {use Arial 11 font}

- *What type of finish will you need on your project?*
- *How do different based finishes affect the final result of the finish?*

*Some finishes need to be durable.*

Knowledge

*Students will know . . .*

*EU 1*

- Prior to application of any finish, proper preparation should be conducted including sanding, cleaning, and filling. (8.2.2.ED.2:)
- Protective finishes be determined by the environmental factors that the wood material would be exposed to.(9.3.MN-PRO.2)
- Different wood species and grain patterns will absorb stains and finishes differently and should be carefully selected.(8.2.2.ED.3:)
- There are ways to make the finish last longer on products that come in contact with food and drinks. (8.2.2.ED.2:)

*EU 2*

- Stains can add aesthetic appeal by enhancing the grain pattern of wood products and alter the color. (8.2.2.ED.2:)
- How to properly apply stains or paints and protective finishes to wood products. (8.2.2.ED.2:)

*EU 3*

- Some finishes are capable of withstanding water. (8.2.2.ED.3:)
- Finishes can be used to protect wood surfaces from impact and wear and tear. (8.2.2.ED.3:)

Skills

*Students will be able to . . .*

*EU 1)*

- Demonstrate the ability to sand, fill, and clean a wood project prior to application of a finish or protective coating. (8.2.2.ED.2:)
- Identify the environmental factors that a wood product will experience and be able to select the appropriate protective finish for the product. (9.3.MN-PRO.2)
- Identifying the porosity of a wood material that will be coated and correctly match the application technique appropriate based on the characteristics of the finish. (8.2.2.ED.3:)
- Describe what type of food safe finish will be best for the product. (8.2.2.ED.2:)

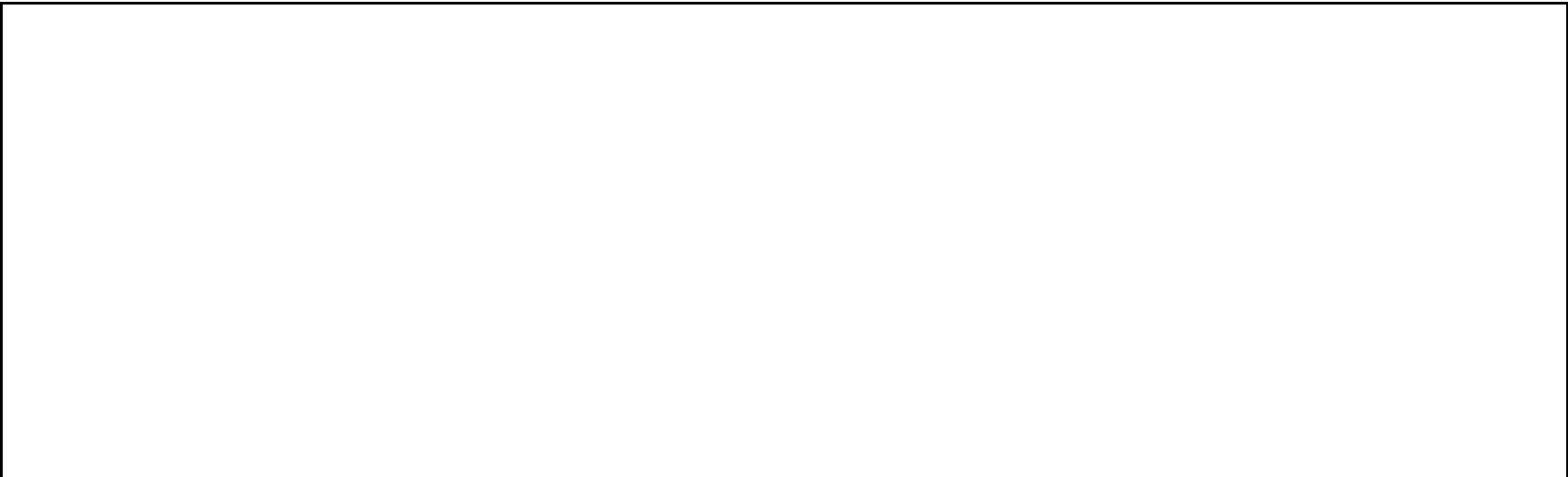
*EU 2*

- Demonstrate changing lumber color using stains or paints. (8.2.2.ED.2:)
- Demonstrate how to properly apply a stain or paint (8.2.2.ED.2:)

*EU3*

- Describe what projects would prevent water from penetrating.(8.2.2.ED.3:)
- Describe what types of finish can be put on hardwood floors. (8.2.2.ED.3:)

<b>Stage Two - Assessment</b>	
•	
<b>Stage Three - Instruction</b>	
<p><b><u>Learning Plan:</u> Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer. {place A, M and/or T along with the applicable EU number in parentheses after each statement} All knowledge and skills must be addressed in this section with a corresponding lesson/activity which teaches each concept. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life &amp; Career Connections (which involves Technology Literacy):</b> <b>Red = Interdisciplinary Connection; Purple = 21st Century Life &amp; Career Connection</b></p> <p>For example:</p> <ul style="list-style-type: none"><li>• Teacher led demonstration on staining wood (A, EU 2)</li><li>• Teacher led demonstration on painting wood (A, EU 2)</li><li>• Teacher led demonstration on adding epoxy to gaps in wood (A, EU 1)</li><li>• Describe some of the ingredients in stains and finishes. (A, EU1,2,3)</li><li>• Apply a finish for a project that could come in contact with food (M, EU1)</li><li>• Apply a finish that will change the color of your lumber. (M, EU2)</li><li>• Apply a finish to a project that needs to be very durable. (M, EU3)</li><li>• Create a list of PPE that you will need when working with finishes. (T, EU1,2,3)</li><li>• Research the different types of stains. (A, T EU1,2,3)</li><li>• Research different types of food safe finishes. (A, T EU1)</li><li>• Create a list of different types of finish applicators and what finishes they should be used for. (M, T EU1,2,3)</li><li>• Student Journaling (T, EU1,2,3)</li></ul>	



### Pacing Guide

{This chart will be identical in all of the units for this course.}

<b>Unit #</b>	<b>Title of Unit</b>	<b>Approximate # of teaching days</b>
1	<i>Safety and Machine Maintenance</i>	30
2	<i>The Assembly Process</i>	40
3	<i>Furniture Making and Cabinetry</i>	80
4	<i>Finishing Process</i>	30

## Instructional Materials

*{Provide a list of all instructional materials used for this curriculum here. Items such as chromebooks and teaching tools such as Peardeck, EdPuzzle, etc... should NOT be listed.}*

- Stains
- Paints
- Varnishes
- Polyurethane
- Epoxy's
- Compressed Air
- Brushes
- Rags
- Ventilation System
- Drying Rack

## Accommodations

*Special Education:* The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

*Students with 504 Plans:* Students will be accommodated based on specific accommodations listed in the 504 Plan.

*English Language Learners:* Students will be accommodated based on individual need and in consultation with the ELL teacher.

*Students at Risk of School Failure:* Students will be accommodated based on individual need and provided various structural supports through their school.

*Gifted and Talented Students:* Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.