MIDLAND PARK PUBLIC SCHOOLS
Midland Park, New Jersey
CURRICULUM

Simple Woodworking Grade 6

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Midland Park Schools
Sixth Grade Simple Woodworking Curriculum
Written by Steve Ferro
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Course Description:

This course, Simple Woodworking, is designed as a basic introduction. In this 10-week course, students will learn: shop safety, project design, proper hand and power tool use, fasteners and finishing. Using proper tools and procedures, students will complete two (2) or more projects through a design and production process.

Course Sequence:

Unit 1: Shop safety
Unit 2: Introduction to materials and tools
Unit 3: Class projects

Preequisite:

No prior experience in shop work is needed

Content Area: Simple Wood Working

Unit Title: Shop Safety

Grade Level: 6th

Unit Summary:
Students will demonstrate learned safety practices as well as show respect for safety procedures and school equipment.

Interdisciplinary Connections: Science

21st Century Themes and Skills:
CRP1. Act as a responsible and contributing citizen and employee. . CRP2. Apply appropriate academic and technical skills. . CRP3. Attend to personal health and financial well-being. . CRP4. Communicate clearly and effectively and with reason. . CRP5. Consider the environmental, social and economic impacts of decisions. . CRP6. Demonstrate creativity and innovation. . CRP7. Employ valid and reliable research strategies. . CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. . CRP9. Model integrity, ethical leadership and effective management. . CRP10. Plan education and career paths aligned to personal goals. . CRP11. Use technology to enhance productivity. . CRP12. Work productively in teams while using cultural global competence.

Standards (Content and Technology):

CPI#:	Statement:
5.1.4.A.2.	Use outcomes of investigations to build and refine questions, models, and explanations
5.1.8.B.2.	Gather, evaluate, and represent evidence using scientific tools, technologies, and computational strategies.
5.1.8.D.1.	Engage in multiple forms of discussion in order to process, make sense of, and learn from others' ideas, observations, and experiences.
8.1.8.A.1.	Demonstrate knowledge of a real world problem using digital tools.
8.1.8.E.1.	Produce a position statement about a real world problem by developing a systematic plan of investigation with peers and experts synthesizing information from multiple sources.

Unit Essential Question(s):
- Why are safety procedures and guidelines important for students and equipment?

Unit Enduring Understandings:
- Students will show that safety procedures and guidelines are important for students to follow so that they are able to successfully complete a woodworking project.

Unit Learning Targets/Objectives:
Students will...
- Demonstrate learned safety practices
- Show respect for outlined safety procedures and for school equipment
- Follow all safety guidelines for each tool used and in general behavior

Formative Assessments:

- Safety reflection form
- Class participation

Summative/Benchmark Assessment(s):

- All students will pass a series of safety tests, both written and practical, with 100% accuracy.

Resources/Materials :

- Websites pertinent to the topic, PowerPoint presentation, computers

Modifications:

- Special Education Student - Allow errors, Rephrase questions, directions, and explanations, Allow use of calculators
- English Language Learners - Allow errors in speaking, Rephrase questions, directions, and explanations
- At-Risk Students - Consult with Guidance Counselors and follow I&RS procedures/action plans
- Gifted and Talented Students- – Make Peer Leaders, Provide extension activities

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
1	Safety of self and other students	2 days
2	Safety of woodshop	2 days
3	Safety of tools and other equipment	3 days

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit:

Content Area: Simple Wood Working

Unit Title: Materials and Tools

Grade Level: 6th

Unit Summary:
Students will gain a basic understanding of the history of hand tools and will recognize the importance of how to properly use each one safely.

Interdisciplinary Connections: Science

21st Century Themes and Skills:
CRP1. Act as a responsible and contributing citizen and employee. . CRP2. Apply appropriate academic and technical skills. . CRP3. Attend to personal health and financial well-being. . CRP4. Communicate clearly and effectively and with reason. . CRP5. Consider the environmental, social and economic impacts of decisions. . CRP6. Demonstrate creativity and innovation. . CRP7. Employ valid and reliable research strategies. . CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. . CRP9. Model integrity, ethical leadership and effective management. . CRP10. Plan education and career paths aligned to personal goals. . CRP11. Use technology to enhance productivity. . CRP12. Work productively in teams while using cultural global competence.

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8.1.8.A.1.	Demonstrate knowledge of a real world problem using digital tools.
8.1.8.E.1.	Produce a position statement about a real world problem by developing a systematic plan of investigation with peers and experts synthesizing information from multiple sources.
NJSLS.3.md.b.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Unit Essential Question(s):
- What is the history of hand tools?
- What is the importance of the use and safety of each hand tool?

Unit Enduring Understandings:
- The importance of using tools properly and safely.

Unit Learning Targets/Objectives:
Students will...
- Identify different types of tools
- Identify different types of wood
- Understand the proper use of different tools
- Demonstrate safe use of each tool and proper tool selection when working

Formative Assessments:

- Demonstration of correct tool selection
- Documentation of tools and materials selection in a written journal

Summative/Benchmark Assessment(s):

- Written and verbal exam

Resources/Materials :

- Websites pertinent to the topic, PowerPoint presentation, computers

Modifications:

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- English Language Learners - Allow errors in speaking, Rephrase questions, directions, and explanations
- At-Risk Students - Consult with Guidance Counselors and follow I&RS procedures/action plans
- Gifted and Talented Students- – Make Peer Leaders, Provide extension activities

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
1	Identify different types of tools	4 days
2	Identify different types of wood	1 day
3	Understand the proper use of different tools	3 days
4	Demonstrate safe use of each tool and proper tool selection when working	4 days

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit:

Content Area: Simple Wood Working

Unit Title: Class Project(s)

Grade Level: 6th

Unit Summary:
Students will create a project(s) using a variety of tools and techniques that will incorporate a specific design and production process.

Interdisciplinary Connections: Science, Math

21st Century Themes and Skills:
CRP1. Act as a responsible and contributing citizen and employee. . CRP2. Apply appropriate academic and technical skills. . CRP3. Attend to personal health and financial well-being. . CRP4. Communicate clearly and effectively and with reason. . CRP5. Consider the environmental, social and economic impacts of decisions. . CRP6. Demonstrate creativity and innovation. . CRP7. Employ valid and reliable research strategies. . CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. . CRP9. Model integrity, ethical leadership and effective management. . CRP10. Plan education and career paths aligned to personal goals. . CRP11. Use technology to enhance productivity. . CRP12. Work productively in teams while using cultural global competence.

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8.1.8.A.1.	Demonstrate knowledge of a real world problem using digital tools.
8.1.8.E.1.	Produce a position statement about a real world problem by developing a systematic plan of investigation with peers and experts synthesizing information from multiple sources.
NJSLS.3.md.b.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Unit Essential Question(s):
- How can you create a desk clock and/or a jelly bean dispenser using wood?

Unit Enduring Understandings:
- Using the proper tools and procedures, student will complete one or both projects: desk clock, jelly bean dispenser.

Unit Learning Targets/Objectives:
Students will...
- Learn how to create project(s) using a variety of tools and techniques.

Formative Assessments:

- Completion of project worksheets
- Class participation

Summative/Benchmark Assessment(s):

- Completion of desk clock and/or jelly bean dispenser.

Resources/Materials :

- Websites pertinent to the topic, PowerPoint presentation, computers

Modifications:

- Special Education Student - Allow errors, Rephrase questions, directions, and explanations, Allow use of calculators

  English Language Learners - Allow errors in speaking, Rephrase questions, directions, and explanations
- At-Risk Students - Consult with Guidance Counselors and follow I&RS procedures/action plans
- Gifted and Talented Students- – Make Peer Leaders, Provide extension activities

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
1	Learn how to create project(s) using a variety of tools and techniques. (desk clock)	7 days
2	Learn how to create project(s) using a variety of tools and techniques.(jelly bean dispenser)	12 days

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit: