



G-E-T High School Curriculum

Align, Explore, Empower

Scope and Sequence

Woods/Pre-Construction

Unit 0 - (Safety, Work Ethic, Employability Skills)

(Ongoing)

- Throughout this course students are focusing on how to use equipment correctly and safely. While this is going on they are continually developing work ethic and employability skills. These skill sets are learned by completing large projects in the wood shop. While in the woodshop students are learning how to work with a variety of tools/machines, work in small/large groups, keep on task while working in a shop setting, stay with deadlines, complete missed time by working outside of class meeting hours etc.

In this unit, students will ...

- Safely and correctly use the wood shop and common tools in a woodworking shop to complete multiple projects
- Develop work ethic skills and employability skills through project based learning and managing time to complete projects

Standards for (Woods/Pre-Construction)

- LE1.a.11.h Exhibit skills such as innovation, intuition, adaptation, life-long learning and coach-ability to develop leadership potential over time.
- LE1.b.7.h Capitalize on team members' individual talents and skills in a project.
- LE1.b.8.h Apply conflict management skills to help facilitate solutions

Unit 1 - (Measure and construct to 1/16" precision/add & subtract fractions to 1/16")

(2-3 days/ongoing)

- Students will work on various measurement exercises from worksheets to examples on various materials. Measurement is worked on throughout this course as students are measuring and adding/subtracting fractions throughout the residential construction process.

In this unit, students will ...

- Apply and use the ruler to 1/16" (measuring, laying out and cutting various construction materials- wall studs, siding, OSB, shingles etc.)
- Add and subtract fractions to 1/16"

Standards for (Woods/Pre-Construction)

- AC1.b.14.h: Apply conventional construction measurement processes accurately
- AC1.b.15.h: Use conventional construction formulas to determine production requirements

Unit 2 - (Identify and develop blueprints for various projects)

(2-3 days)

- Students will learn about how to create a product from beginning thoughts to the end product. Through this process students will go through the various steps to design a project.

In this unit, students will ...

- Students will identify and implement steps in planning a product. (Identify problem, sketch product, determine resources, determine tool/equipment, prepare working drawing, build, test/complete feedback)

Standards for (Woods/Pre-Construction)

- ENG3.a.5.h Explain technological problems must be researched before they can be solved
- ENG4.a.5.h Identify the design problem to solve and determine how to address it

Unit 3 - (Identify and demonstrate proper safety usage of common woodworking tools.)

(1 week)

- Students will learn about various hand and power tools commonly used in the woodworking shop. They will identify parts, complete safety tests and safety demonstrations to accurately and safely use the tools/machines.

In this unit, students will ...

- Students will identify and demonstrate proper usage of table saw, jointer, planer, sliding compound miter, shaper, finish nailer, drill, and other hand/power tools.
- Students will identify and apply proper safety in the shop setting. (safety glasses, guards in place, proper positioning)
- Students will demonstrate proper shop etiquette toward all persons and equipment in the shop setting

Standards for (Woods/Pre-Construction)

- AC1.c.5.h Demonstrate and use the common hand tools of the trade safely and properly.
- AC1.f.6.h Demonstrate the safety procedures and practices in various work environment settings pertaining to residential and commercial construction

Unit 4 - (Produce finish quality stock from rough sawn lumber through a woods project (coffee table, night stand, bookshelf, entry table) (6-8 weeks)

- Students will use the blueprint they created of their desired project (coffee table, night stand,

bookshelf, entry table) to build the project in the wood shop. They will be using a variety of woodworking tools and will work independently and in small groups to complete the project. There will be focuses on safety, working efficiently, working with partners, maintenance and clean up.

In this unit, students will ...

- Students will use jointer, planer, table saw, sliding compound miter saw, to prepare stock from rough sawn lumber to finished product
- Student will identify and produce the following joints edge, rabbet, dado, pocket, dowel, dovetail, half-lap, mortise and tenon and tongue and groove

Standards for (Woods/Pre-Construction)

- BB1.e.5.h: Select and perform an appropriate maintenance is the process in order for the product or system to continue functioning properly, to extend its life or to upgrade its capability given a flawed product or system
- MNF1.a.9h: Select and apply the appropriate units and scales for situations involving measurement
- MNF1.e.8.h: Use a manufacturing system to produce a product.
- MNF1.f.8.h: Recognize technologies provide a means for humans to alter or modify the materials and to produce products

Unit 5 - (Demonstrate employability and work ethic skills while working in the shop) (Ongoing)

- Throughout this course students will be developing/honing their employability/work ethic skills. This is done through the residential project that is worked on by the entire class. Students will learn how to work individually, in small groups and in large groups depending upon the task at hand.

In this unit, students will ...

- Students will be able to employ the following: positive attitude, willingness to learn, time management, follow directions, leadership communication, problem solving, honesty, acceptance of others, teamwork, and responsibility)

Standards for (Woods/Pre-Construction)

- CD1.b.6.h: Develop an action plan to set and achieve realistic goals
- CD1.c.9.h: Assess cultural differences and work effectively with people from a range of social and cultural backgrounds
- CD1.c.11.h: Evaluate how the personal strengths and assets of others contribute to a cooperative group atmosphere

Unit 6 - (Identify and apply residential construction floor framing, wall framing and roof framing)
(2-3 weeks)

- Students will identify floor framing, wall framing and roof framing concepts and then apply this knowledge to the construction of floor framing, wall framing and roof framing of a 5'x5' building.

In this unit, students will ...

- Identify parts of a wood floor frame (sill plate, posts, beams, floor joists, bridging, and sheathing)
- Construct a floor frame on the 5'x5' building
- Identify parts and describe the importance of the pieces in a residential construction wall (bottom plate, top plate, header, stud, cripple, trimmer, king stud, sill)
- Construct various walls with window and door openings on the 5'x5' building
- Identify parts and describe the importance of the pieces in a residential construction roof (gable roof, truss, shingles, underlayment, coil roofing nailer, fascia board, fascia, soffit, ice and water shield, cap shingles, roof vent, insulation,
- Construct the roof on the 5'x5' building

Standards for (Woods/Pre-Construction)

AC1.a.10.h: Analyze how structures are constructed using a variety of processes and procedures

AC1.e.12.h: Interpret and use residential construction blueprints and specifications