

**Wallingford Public Schools - HIGH SCHOOL COURSE OUTLINE**

<b>Course Title:</b> Agricultural Mechanics / Turf Management 3	<b>Course Number:</b> 8773
<b>Department:</b> Agriculture Education	<b>Grade(s):</b> 11
<b>Level(s):</b> Academic	<b>Credit(s):</b> 1.5
<b>Course Description</b> Junior course work continues to build a foundation for students interested in agricultural mechanics and turf management. Topics studied include: facility construction, transit and site grading, equipment system maintenance, job interviewing, and boat construction. Students will continue to participate in the Lyman Hall Chapter of the national organization, FFA. Students will continue the development of their portfolio and skills to prepare for future careers in agricultural mechanics and turf management.	
<b>Required Instructional Materials</b> Sufficient Hands-on Materials	<b>Completion/Revision Date</b> Approved by Board of Education October 15, 2007

**Mission Statement of the Curriculum Management Team**

The mission of the Career and Technical Education Curriculum Management Team is to ensure that students, as a result of their experiences in K-12, will demonstrate transferable skills, knowledge, and attributes for successful life management, employment, career development, post-secondary educational opportunities, and life long learning.

**Enduring Understandings for the Course**

- Self-reflection of learning experiences, in and out of school, fosters the development of a life long learner. Life long learners are able to apply and refine skills as they prepare for their post-high school endeavors.
- Successful construction relies on a sequential series of skills that may be completed by different craftsmen at different times, working together to complete the job professionally.
- It is easier to measure twice and cut once, than to fix mistakes.
- Safety in the shop is a continuous process and affects everyone in the shop environment.
- Skilled and safe use of materials and equipment will result in quality construction and a satisfied client or employer.
- Accurate determination of elevations, dimensions and excavation volumes before construction will ensure the desired outcome.
- Skilled and safe use of equipment will result in quality construction and a satisfied client or employer.
- Basic engine principles learned on small gas engines can be applied to large engines thus allowing the mechanic to diagnose, repair and maintain many types of engines.
- Systematic diagnosis and various problem solving skills are applied for the identification

of mechanical failures and repair techniques.
<ul style="list-style-type: none"><li>• Organization is essential to complete simple to complex and multi-step tasks efficiently and accuracy, such as disassembling and assembling mechanical components.</li></ul>
<ul style="list-style-type: none"><li>• Proper maintenance will increase the lifespan of all machines.</li></ul>
<ul style="list-style-type: none"><li>• Successful preparation for the interview process and the ability to present yourself professionally will set you apart from other applicants.</li></ul>
<ul style="list-style-type: none"><li>• Skilled and safe use of materials and equipment will result in quality construction and a satisfied client or employer.</li></ul>

**LEARNING STRAND**

1.0 Transferable Skills

**ENDURING UNDERSTANDING(S)**

- Self-reflection of learning experiences, in and out of school, fosters the development of a life long learner. Life long learners are able to apply and refine skills as they prepare for their post-high school endeavors.

**ESSENTIAL QUESTION(S)**

- What is the importance of maintaining a portfolio?
- What are the qualities of an effective oral presentation?
- What safety precautions do I have to follow?
- What can I do differently next time?
- What does a cooperative group require to function successfully?
- How can I assess the situation and implement change?
- What are the characteristics of an organized person? What do I need to do to be more organized?
- How can I manage informational research, organize the information, and present it professionally?
- What is a leader?

**LEARNING OBJECTIVES** The students will:

- 1.1 Demonstrate public speaking skills using appropriate visuals and tailoring the presentation to specific audiences.
- 1.2 Communicate in writing about a topic using different formats applying relevant vocabulary, supporting evidence and clear logic.
- 1.3 Self-assess transferable skills and reflect on areas of strengths and improvement.
- 1.4 Identify and use the appropriate tools and equipment safely.
- 1.5 Work cooperatively with fellow peers, teachers, and employers to complete a task.
- 1.6 Apply problem solving skills to critically approach a situation and work through the steps to solve the problem.
- 1.7 Develop organizational skills that assist with data collection, data analysis and synthesis.
- 1.8 Apply research skills to collect information, summarize the findings and to cite the sources used.
- 1.9 Recognize leadership skills such as: motivating others, negotiating,

**INSTRUCTIONAL SUPPORT MATERIALS**

- See other learning strands for integration

**SUGGESTED INSTRUCTIONAL STRATEGIES**

- See other learning strands for integration

**SUGGESTED ASSESSMENT METHODS**

- See other learning strands for integration

<p>participating in meetings, gaining confidence, and gaining self-awareness, etc.</p> <p>1.10 Apply computer-based tools such as PowerPoint, Word, Excel, and Access, to organize and present information.</p> <p>1.11 Demonstrate self expression and creativity through different projects.</p> <p>1.12 Develop a positive attitude and become an independent learner in order to prepare for the future.</p> <p>1.13 Organize and maintain a four year portfolio including a compilation of student products and reflections.</p> <p>1.14 Document SAE (Supervised Agricultural Experience) monthly. This includes recording hours, expenses, income, tasks and applied skills.</p>	
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<b><u>LEARNING STRAND</u></b>	
2.0 Facility Construction <ul style="list-style-type: none"> <li>• Approximately 5 weeks</li> </ul>	
<b><u>ENDURING UNDERSTANDING(S)</u></b> <ul style="list-style-type: none"> <li>• Successful construction relies on a sequential series of skills that may be completed by different craftsmen at different times, working together to complete the job professionally.</li> <li>• It is easier to measure twice and cut once, than to fix mistakes.</li> <li>• Safety in the shop is a continuous process and affects everyone in the shop environment.</li> <li>• Skilled and safe use of materials and equipment will result in quality construction and a satisfied client or employer.</li> </ul>	<b><u>ESSENTIAL QUESTION(S)</u></b> <ul style="list-style-type: none"> <li>• What safety precautions do I have to follow in a shop setting?</li> <li>• How does one assemble a quality wall construction project?</li> <li>• What does a quality wall construction project look like?</li> <li>• How are different tools used to cut and fasten lumber?</li> <li>• How is copper piping placed and soldered in an existing wall?</li> <li>• How are lights, switches, and duplex receptacles installed on a wall?</li> <li>• How is sheetrock cut, hung, and finished properly to look presentable?</li> </ul>
<b><u>LEARNING OBJECTIVES</u></b> The students will: <ul style="list-style-type: none"> <li>2.1 Apply problem solving skills to critically approach a situation and work through the steps to solve the problem.</li> <li>2.3 Demonstrate the appropriate and safe use of construction tools such as:             <ul style="list-style-type: none"> <li>* Circular saws</li> <li>* Compound miter saw</li> <li>* Drills and appropriate bits</li> <li>* Framing hammers</li> <li>* Soldering torch</li> <li>* Wiring pliers</li> <li>* Taping knives</li> </ul> </li> <li>2.4 Select appropriate lumber for a project based on the properties of the lumber and cost.</li> <li>2.5 Read a ruler to within 1/16" to accurately measure.</li> <li>2.6 Interpret working drawings to construct a framing project utilizing skills to:             <ul style="list-style-type: none"> <li>* Read a woodworking bill of materials</li> <li>* Measure and cut lumber to specifications</li> <li>* Assemble a load-bearing wall with rough openings for doors and windows</li> </ul> </li> <li>2.7 Demonstrate how to construct and explain the purpose and characteristics of framing components such as:</li> </ul>	<b><u>INSTRUCTIONAL SUPPORT MATERIALS</u></b> <ul style="list-style-type: none"> <li>• Appropriate equipment and materials including: 2" x 4" and 2" x 6" lumber at various lengths, hammers, nails, framing saws, squares, tape measures, tubing cutters, torch and soldering material, 14-2 romex cable, wiring tools, drills, sheet rock, tape and joint compound</li> <li>• Appropriate safety equipment and attire including goggles</li> <li>• Wall framing plans</li> <li>• Photographs and drawings depicting various house construction styles</li> </ul> <b><u>SUGGESTED INSTRUCTIONAL STRATEGIES</u></b> <ul style="list-style-type: none"> <li>• Review and post safety rules</li> <li>• Teacher demonstrations/modeling             <ul style="list-style-type: none"> <li>* Accurate measurements</li> <li>* Cutting wood</li> <li>* Wall layout</li> <li>* Nailing</li> <li>* Soldering</li> <li>* Wiring</li> <li>* Sheet rock cutting, hanging, &amp; taping</li> </ul> </li> <li>• Demonstrate the appropriate and safe use of tools such as:</li> </ul>

<ul style="list-style-type: none"> <li>* Headers</li> <li>* Jack stud</li> <li>* King stud</li> <li>* Cripple stud</li> <li>* Sill plate</li> <li>* Top plate.</li> </ul> <p>2.7 Use proper plumbing techniques of measuring, cutting and soldering to install a working copper pipe system in a framed wall.</p> <p>2.8 Design and install an electrical circuit in a framed wall including:</p> <ul style="list-style-type: none"> <li>* Light switch</li> <li>* Light</li> <li>* Duplex receptacle</li> </ul> <p>2.9 Demonstrate how to hang and finish drywall using tape and joint compound.</p> <p>2.9 Compare and contrast seven different house styles</p> <ul style="list-style-type: none"> <li>* Colonial</li> <li>* Garrison colonial</li> <li>* Cape</li> <li>* Ranch</li> <li>* Raised ranch</li> <li>* Contemporary</li> <li>* Split level ranch</li> </ul>	<ul style="list-style-type: none"> <li>* Framing saws</li> <li>* Hammers</li> <li>* Squares</li> <li>* Torch and soldering material</li> <li>* Wiring pliers</li> </ul> <ul style="list-style-type: none"> <li>• Class discussion and field trip to identify various house styles</li> <li>• Writing assignment – write a business letter as the town building inspector to the homeowner addressing concerns and commendations on the work performed on the renovation project</li> </ul> <p><b><u>SUGGESTED ASSESSMENT METHODS</u></b></p> <ul style="list-style-type: none"> <li>• Project checklist rubric</li> <li>• Teacher observation of techniques</li> <li>• Quizzes and tests</li> <li>• Portfolio items may include: <ul style="list-style-type: none"> <li>○ Skill sheet</li> <li>○ Work sample picture and caption</li> <li>○ Writing assignment</li> </ul> </li> </ul>
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<b><u>LEARNING STRAND</u></b>	
3.0 Transit and Site Grading <ul style="list-style-type: none"> <li>• Approximately 5 weeks</li> </ul>	
<b><u>ENDURING UNDERSTANDING(S)</u></b> <ul style="list-style-type: none"> <li>• Accurate determination of elevations, dimensions and excavation volumes before construction will ensure the desired outcome.</li> <li>• Skilled and safe use of equipment will result in quality construction and a satisfied client or employer.</li> </ul>	<b><u>ESSENTIAL QUESTION(S)</u></b> <ul style="list-style-type: none"> <li>• How can I use my pace to determine the approximate dimensions of an area?</li> <li>• What information can surveying equipment provide?</li> <li>• How can I translate field notes into an accurate drawing?</li> <li>• How do you effectively use excavation equipment?</li> <li>• How are cubic yardages, cut and fill and slope used to create the desired terrain level?</li> </ul>
<b><u>LEARNING OBJECTIVES</u></b> The students will: <ol style="list-style-type: none"> <li>3.1 Determine the length of one's pace.</li> <li>3.2 Determine length of an area using pace alone.</li> <li>3.3 Demonstrate efficient use of surveying equipment, including:             <ul style="list-style-type: none"> <li>• Builder's level</li> <li>• Laser transit</li> <li>• Surveying rod</li> <li>• 200' tape and chain pins</li> </ul> </li> <li>3.4 Record accurate surveying field notes from observations and measurements.</li> <li>3.5 Determine elevations and slope using field notes.</li> <li>3.6 Construct a scale drawing based on field measurements.</li> <li>3.7 Explain why one needs to ensure a safe working environment before equipment use:             <ul style="list-style-type: none"> <li>• Call Before You Dig</li> <li>• Worker safety zone</li> </ul> </li> <li>3.8 Demonstrate safe and efficient setup, attachment and use of excavation equipment, including:             <ul style="list-style-type: none"> <li>• John Deere 250 skid steer with bucket</li> <li>• John Deere 911 skid steer-mounted backhoe</li> <li>• Skid steer-mounted power rake</li> <li>• John Deere 5420 and 4710 tractors</li> <li>• Three-point hitch-mounted York Rake</li> </ul> </li> </ol>	<b><u>INSTRUCTIONAL SUPPORT MATERIALS</u></b> <ul style="list-style-type: none"> <li>• Surveying equipment such as: builder's level, laser transit, surveying rod, 200' tape and chain pins, etc.</li> <li>• Availability of fields for surveying use</li> <li>• Drawing materials such as: engineer scales, graph paper, etc.</li> <li>• Excavation and grading equipment such as: assorted tractors and attachments</li> <li>• Availability of land for excavation and grading purposes</li> </ul> <b><u>SUGGESTED INSTRUCTIONAL STRATEGIES</u></b> <ul style="list-style-type: none"> <li>• Demonstrate proper use of surveying equipment</li> <li>• Model how to take accurate surveying measurements and how to interpret this data</li> <li>• Model how to construct scale drawings including mini lessons on triangulation, accurate measurements, ruler reading, drawing on graph paper, etc.</li> <li>• Demonstrate proper use of excavation and grading equipment</li> <li>• Hands-on learning using the equipment to perform excavation and grading work</li> </ul> <b><u>SUGGESTED ASSESSMENT METHODS</u></b> <ul style="list-style-type: none"> <li>• Equipment operation checklists</li> <li>• Athletic field drawing rubric</li> <li>• Exercises demonstrating safety and</li> </ul>

	<p>efficiency with excavation equipment, including:</p> <ul style="list-style-type: none"><li>* Dig a hole to a specified dimension using the backhoe</li><li>* Rough terrain grading using tractor bucket</li><li>* Finished grading using york rake and power rake</li></ul> <ul style="list-style-type: none"><li>• Mathematical problems on cut/fill, cubic yardages, yards/feet, acreage, slope</li><li>• Portfolio pieces may include:<ul style="list-style-type: none"><li>• Skill sheet</li><li>• Work sample</li><li>• Writing assignment – business letter to the building department describing how the class determined the elevations around the VoAg storage building and used these to re-grade the terrain to establish proper drainage patterns</li><li>• Scale drawing constructed from surveying notes</li></ul></li></ul>
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<b><u>LEARNING STRAND</u></b>	
<p>4.0 Equipment Systems Maintenance</p> <ul style="list-style-type: none"> <li>• Approximately 5 weeks</li> </ul>	
<p><b><u>ENDURING UNDERSTANDING(S)</u></b></p> <ul style="list-style-type: none"> <li>• Basic engine principles learned on small gas engines can be applied to large engines thus allowing the mechanic to diagnose, repair and maintain many types of engines.</li> <li>• Systematic diagnosis and various problem solving skills are applied for the identification of mechanical failures and repair techniques.</li> <li>• Organization is essential to complete simple to complex and multi-step tasks efficiently and accuracy, such as disassembling and assembling mechanical components.</li> <li>• Proper maintenance will increase the lifespan of all machines.</li> </ul>	<p><b><u>ESSENTIAL QUESTION(S)</u></b></p> <ul style="list-style-type: none"> <li>• How does an engine function?</li> <li>• Why is maintenance critical to engine and machines to ensure peak performance?</li> <li>• What safety precautions must be used in a shop setting?</li> <li>• How do you correctly disassemble and assemble an engine or machine?</li> <li>• What maintenance must be performed on engines and machines to ensure peak performance?</li> <li>• What are the differences between a 2- and 4-stroke engine?</li> <li>• What are the differences between two and four stroke engines and L head versus OHV engines?</li> </ul>
<p><b><u>LEARNING OBJECTIVES</u></b> The students will:</p> <p>4.1 Describe the basic operating principles of a four stroke OHV small gas engine</p> <p>4.2 Describe the basic operating principles of a 4-stroke overhead valve small gas engine (fuel intake, compression, power and exhaust).</p> <p>4.3 Identify the basic components and functions of a small gas engine.</p> <p>4.4 Disassemble and reassemble an overhead valve small gas engine accurately.</p> <p>4.5 Diagnose wear or breakage on small gas engine parts and/or equipment.</p> <p>4.6 Troubleshoot and repair common malfunctions of a small gas engine including:</p> <ul style="list-style-type: none"> <li>• Check spark</li> <li>• Check compression</li> <li>• Check fuel system</li> </ul> <p>4.7 Adjust a small gas engine to start and run smoothly. (Carburetor, gap sizes, etc.)</p> <p>4.8 Explain the difference in operation and construction of 2- and 4-stroke engines.</p> <p>4.9 Perform routine maintenance on equipment: oil and filters, grease, tires,</p>	<p><b><u>INSTRUCTIONAL SUPPORT MATERIALS</u></b></p> <ul style="list-style-type: none"> <li>• 5 hp L head Briggs and Stratton engine</li> <li>• Various small engine tools supplies</li> <li>• Service manuals</li> <li>• Appropriate safety items, including eyewear, wheel blocks, jack stands</li> </ul> <p><b><u>SUGGESTED INSTRUCTIONAL STRATEGIES</u></b></p> <ul style="list-style-type: none"> <li>• Review and model shop safety procedures and rules including the use of safety equipment such as eye washes, fire blanket, showers, emergency shut off valves, etc.</li> <li>• Discuss correct disposal of liquids, hazardous fuels and fire hazards</li> <li>• Service and repair accessory equipment</li> <li>• Organize and chart engine components during disassembly</li> <li>• Use repair manuals to disassemble and assemble engines</li> <li>• Class discussions</li> <li>• Demonstrate how to use a service manual to select parts or gather information on a small gasoline engine.</li> <li>• Designate an engine as a 2- or 4-cycle</li> <li>• Cooperative learning and peer assistance</li> </ul>

<p>blades, bolt checks as per manufacturer's specifications</p>	<ul style="list-style-type: none"><li>• Demonstrations include:<ul style="list-style-type: none"><li>○ Lap valves and diagnose proper seating patterns</li><li>○ Engine measuring and testing tools and equipment</li><li>○ Torque wrench use</li><li>○ Piston ring compression tool</li><li>○ Engine compression check</li><li>○ Ignition spark test</li><li>○ Carburetor adjustments</li><li>○ Blade sharpening techniques</li><li>○ Filter removal and installation</li></ul></li></ul> <p><b><u>SUGGESTED ASSESSMENT METHODS</u></b></p> <ul style="list-style-type: none"><li>• Teacher observations</li><li>• Participation</li><li>• Written responses to questions</li><li>• Quizzes and test</li><li>• Evidence of smooth-running rebuilt engine</li><li>• Portfolio products may include:<ul style="list-style-type: none"><li>○ Work sample picture and caption</li><li>○ Writing assignment answering one of the essential questions</li><li>○ Skill sheet</li></ul></li></ul>
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**LEARNING STRAND**

5.0 School to Career Preparation – Interviewing

- Approximately 4 weeks

**ENDURING UNDERSTANDING(S)**

- Successful preparation for the interview process and the ability to present yourself professionally will set you apart from other applicants.

**ESSENTIAL QUESTION(S)**

- Why should I prepare for the interview?
- How can I prepare for an interview?
- What do I need to consider to be successful during the interview?
- What do I need to do after the interview?

**LEARNING OBJECTIVES** – The students will:  
**Getting Ready for the Job Interview**

5.1 Write a resume highlighting transferable skills and technical skills related to a specific job and document these skills with artifacts from their portfolio.

5.2 Write a business letter using the correct format which adheres to Standard English conventions.

- Cover letter introducing student to a potential employer
- Thank you letter for interview
- Acceptance or rejection letter for position offered

5.3 Compile a list of three references and contact information.

5.4 Complete a mock job application accurately to emphasize your positive attributes.

5.5 Demonstrate preparation skills related to interviewing. Such as:

- Predict what type of questions will be asked
- Warm-up skills/small talk
- Dress for success/grooming
- How to handle illegal questions
- Company research

5.6 Demonstrate appropriate skills during a mock interview. Such as:

- Non-verbal communication skills
  - Eye contact
  - Positive attitude
  - Hand shake
- Verbal skills
  - Voice, diction, grammar
  - Convincing skills presentation
  - Respond to criticism or

**INSTRUCTIONAL SUPPORT MATERIALS**

- Videos on writing a resume, cover letters, etc.
- Videos on interviewing
- Sample resumes, cover letters, references
- Assorted job applications

**SUGGESTED INSTRUCTIONAL STRATEGIES**

- Discuss model resumes and how the different designs highlight different strengths of the applicant
- Discuss the organization and visual presentation of resumes
- Know my skills activity – brainstorm, list and categorize personal skills, technical skills and work experience – then find artifacts in their portfolios to “prove” these skills
- Brainstorm and discuss characteristics of potential references
- Encourage students to contact references prior to using their name on an application
- Role play during practice mock interviews
- Human resource representative from a local company can assist with mock interviews
- Discuss employer expectations for a variety of jobs

**SUGGESTED ASSESSMENT METHODS**

- Mock interview rubric
- Resume rubric
- Business letter rubric
- Group participation
- Skills checklist
- Portfolio products may include:
  - Resume and cover letter

<p style="text-align: center;">questions</p> <ul style="list-style-type: none"> <li>• Explaining strengths and weaknesses <ul style="list-style-type: none"> <li>○ Provide concrete examples</li> <li>○ Positive spin on weaknesses to improve</li> </ul> </li> <li>• Ask appropriate and pertinent questions</li> <li>• Comes prepared with needed materials <ul style="list-style-type: none"> <li>○ Application</li> <li>○ Resume</li> <li>○ References</li> <li>○ Pen, pad of paper and folder</li> <li>○ Examples from portfolio</li> </ul> </li> <li>• Closing statement and thank you</li> </ul> <p>5.6 Evaluate the pros and cons of the position presented to you. Evaluate specifics of the employment such as:</p> <ul style="list-style-type: none"> <li>• Salary</li> <li>• Benefits</li> <li>• Hours</li> <li>• Vacation</li> <li>• Working conditions</li> <li>• Opportunities for advancement</li> <li>• Lifestyle needs</li> </ul> <p><u>Note:</u> Employment and other related experiences outside of the classroom can be applied towards the SAE requirements.</p>	<ul style="list-style-type: none"> <li>• Mock job application and references</li> <li>• Thank you letter to interviewer</li> <li>• Acceptance or rejection letter for position offered</li> <li>• Photo of student dressed for interview</li> </ul>
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<b><u>LEARNING STRAND</u></b>	
6.0 Boat Construction <ul style="list-style-type: none"> <li>• Approximately 12 weeks</li> </ul>	
<b><u>ENDURING UNDERSTANDING(S)</u></b> <ul style="list-style-type: none"> <li>• Skilled and safe use of materials and equipment will result in quality construction and a satisfied client or employer.</li> </ul>	<b><u>ESSENTIAL QUESTION(S)</u></b> <ul style="list-style-type: none"> <li>• What does a quality wood project look like?</li> <li>• What safety precautions must be used in a shop setting?</li> <li>• How are different tools used to cut and finish wood?</li> </ul>
<b><u>LEARNING OBJECTIVES</u></b> The students will: <p>6.1 Apply problem solving skills to critically approach a situation and work through the steps to solve the problem.</p> <p>6.2 Demonstrate the appropriate and safe use of woodworking tools such as:</p> <ul style="list-style-type: none"> <li>• Hand saws</li> <li>• Drills and appropriate bits</li> <li>• Portable sanders</li> <li>• Jointer</li> <li>• Planer</li> <li>• Band saw</li> <li>• Table saw</li> <li>• Sliding compound miter saw</li> <li>• Etc.</li> </ul> <p>6.3 Read a ruler to within 1/16" to accurately measure and cut.</p> <p>6.4 Construct a wood boat utilizing skills including:</p> <ul style="list-style-type: none"> <li>• Read a woodworking bill of materials</li> <li>• Measure and cut boards to specifications</li> <li>• Construct boat building jig</li> <li>• Assemble a wooden boat project with adhesive and fasteners</li> <li>• Prepare a wooden boat project to apply a finish</li> <li>• Apply a finish</li> </ul>	<b><u>INSTRUCTIONAL SUPPORT MATERIALS</u></b> <ul style="list-style-type: none"> <li>• Hand saws, drills, sanders, jointer, planer, band saw, table saw, sliding compound miter saw, wood filler, sandpaper, fiberglass resin</li> <li>• Project lumber</li> <li>• Appropriate safety equipment and attire including goggles</li> <li>• Boat construction plans</li> </ul> <b><u>SUGGESTED INSTRUCTIONAL STRATEGIES</u></b> <ul style="list-style-type: none"> <li>• Review and post safety rules</li> <li>• Model safe and appropriate technique of tool use</li> <li>• Model how to counter sink screws, pre-drill holes and avoid splitting the wood or stripping the screw</li> <li>• Model how to cut lumber for project and practice on scrap lumber</li> <li>• Discuss poor techniques and how to correct the error, such as stripped or broken screws, split wood, etc.</li> <li>• Model proper technique for mixing and applying fiberglass resin to wood surface</li> <li>• Writing assignment – acting as your own trial lawyer, address the jury on how it would have been impossible for your boat to have sunk due to improper workmanship. Describe the steps necessary to properly construct the boat.</li> </ul> <b><u>SUGGESTED ASSESSMENT METHODS</u></b> <ul style="list-style-type: none"> <li>• Boat building rubric</li> <li>• Portfolio products may include:             <ul style="list-style-type: none"> <li>○ Work sample picture and caption</li> <li>○ Writing assignment</li> <li>○ Skill sheet</li> </ul> </li> </ul>