***Submitted by John Iverson, Cascade High School Class: Tools of the Trades Unit: Preparing for a Career in the Trades***

***Preparing for a Career in the Trades***

*The unit, The Tools of the Trades,* will examine the following topics necessary to prepare students for a career in industry implementing 21st century skills. The following objectives will be met:

**Objectives**

* Students will identify and demonstrate knowledge of “soft skills” necessary in today’s workplace. (Career Technical)
* Students will demonstrate select “hard skills” and complete a variety of “stations” showcasing skills learned in class. (Construction and Manufacturing)
* Key vocabulary connected to a career in industry will be researched, defined, and the correct usage demonstrated. (Career Technical and Construction Manufacturing)
* An interview, similar to an interview conducted in order to secure an apprenticeship, will be conducted by the instructor, and additional staff members as needed. (Career Technical)

**Key Concepts of the Unit:** Prepare students for a career in industry by providing a variety of lessons incorporating soft and hard skills.

Career Technical Skills and Knowledge:

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| --- | --- |
| **Cluster Knowledge and Skills (CTE standards) addressed in this unit.** | |
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| **Code Number** | **KS Statement** |
| MNZ01.01 | Use mathematics in the manufacturing process. |
| MNZ05.01 | Summarize and explain how manufacturing businesses operate to demonstrate an understanding of key functions within organizations in the industry. |
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| MNZ10.01 | Describe and employ technical skills and knowledge required for careers in manufacturing in order to perform basic workplace activities common to manufacturing. |

**Integration Possibilities**

Tile project may be incorporated into an area on the school grounds as part of school improvement working closely with the maintenance staff.

Workplace mathematics will be designed with the math department.

Other departments such as consumer foods, business, etc. may benefit from participating in the interview skills using the STAR method of interviewing.

**Project-based learning opportunities**

Students will complete several projects illustrating their knowledge and ability of hard skills. One example is a section students will tile using all the skills associated with tiling.

Students will maintain a journal, or record of their accomplishments in a class journal.

Students will conduct and participate in an interview using the STAR methods currently utilized by the Boeing in their hiring process.

**Necessary Skills for the 21st century Workplace: Soft Skills**

**Lesson**: The Importance of “Soft Skills”

**Objective**: Students will familiarize themselves with the concept of soft skills and select the ten most important soft skills that a workplace might desire and identify as skills a great employee must possess. The top three skills must be demonstrated by students as a class activity.

**Materials Needed**: Soft Skills List

**Class Periods:** One class period to introduce the concept and multiple class periods, depending on class size, to demonstrate mastery of the three concepts the students deem most important.

**Steps**

1. Each student will receive a copy of the Soft Skills List and select the ten most important skills they would seek if they were a boss, or owner of a business.
2. Enter into a small group with two other classmates and compare the lists.
3. Identify any similarities and justify the reason for your selection with the peers in each group.
4. Place a check mark by each term is not clearly understood and discuss with group.
5. Instructor inquire as to any terms that are unclear as to their meaning and discuss correct meaning and provide a workplace example.
6. While in a cooperative group, select the top three most important from the list of ten. The top three that are not negotiable, that an employee must possess in order to retain a job. Identify the top three and share with the group as to why you selected the three
7. Brainstorm methods to demonstrate the three skills identified as the most important to possess in the workplace.
8. Write the top three in the class journal that is maintained as a record of the class. The class journal, or record contains checklists of skills mastered in the class, a daily report as to what was accomplished in class, and project ideas. Once the class record is updated, students will identify how they will show mastery of the soft skill. Students have one week to show mastery of the skill and record in their class journal.
9. Each student will ask three different adults who possess a job to identify the top three most important soft skills they possess and appreciate in others in order to be considered an effective, valuable employee.
10. The soft skills identified by three adults will be shared and discussed in class in a discussion directed by the instructor.

**SOFT SKILLS List** Retrieved from http://training.simplicable.com/training/new/87-soft-skills

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Communication Skills  1. Verbal Communication  2. Body Language  3. Physical Communication  4. Writing  5. Storytelling  6. [Visual Communication](http://training.simplicable.com/training/new/83-visual-communication-skills)  7. [Humor](http://training.simplicable.com/training/new/humor-as-a-skill)  8. Quick-wittedness  9. [Listening](http://training.simplicable.com/training/new/active-listening-habit)  10. [Presentation Skills](http://training.simplicable.com/training/new/how-to-give-magnetic-presentations)  11. [Public Speaking](http://training.simplicable.com/training/new/public-speaking)  12. [Interviewing](http://careers.simplicable.com/careers/new/hiring-guide)  Leadership  13. Team Building  14. Strategic Planning  15. Coaching  16. Mentoring  17. Delegation  18. Dispute Resolution  19. [Diplomacy](http://training.simplicable.com/training/new/15-diplomacy-strategies-for-negotiations)  20. Giving Feedback  21. Managing Difficult Conversations  22. [Decision Making](http://training.simplicable.com/training/new/decision-making)  23. Performance Management  24. Supervising  25. [Managing](http://training.simplicable.com/training/new/110-management-skills)  26. Manager Management  27. Talent Management  28. Managing Remote Teams  29. Managing Virtual Teams  30. Crisis Management  Influencing  31. Facilitation  32. [Selling](http://training.simplicable.com/training/new/95-sales-skills)  33. Inspiring  34. Persuasion  35. [Negotiation](http://training.simplicable.com/training/new/103-negotiation-skills)  36. Motivating  37. Collaborating  Interpersonal Skills  38. Networking  39. Interpersonal Relationships  40. Dealing with Difficult People  41. Conflict Resolution  42. [Personal Branding](http://training.simplicable.com/training/new/personal-branding)  43. Office Politics  Personal Skills  44. [Emotional Intelligence](http://training.simplicable.com/training/new/42-emotional-intelligence-skills)  45. Self Awareness  46. Emotion Management  47. Stress Management  48. Tolerance of Change and Uncertainty  49. Taking Criticism  50. Self Confidence  51. Adaptability  52. Resilience  53. Assertiveness  54. Competitiveness  55. Self Leadership  56. Self Assessment  57. Work-Life Balance  58. Friendliness  59. Enthusiasm  60. Empathy  Creativity  61. Problem Solving  62. Critical Thinking  63. [Innovation](http://training.simplicable.com/training/new/60-innovation-skills)  64. Troubleshooting  65. Design Sense  66. Artistic Sense  Professional Skills  67. Organization  68. Planning  69. Scheduling  70. [Time Management](http://training.simplicable.com/training/new/34-time-management-skills)  71. Meeting Management  72. Technology Savvy  73. Technology Trend Awareness  74. Business Trend Awareness  75. Research  76. Business Etiquette  77. Business Ethics  78. Diversity Awareness  79. Disability Awareness  80. Intercultural Competence  81. Training  82. [Train the Trainer](http://business.simplicable.com/business/new/what-train-the-trainer-means)  83. Process Improvement  84. [Knowledge Management](http://management.simplicable.com/management/new/knowledge-management-guide)  85. Writing Reports and Proposals  86. Customer Service  87. Entrepreneurial Thinking    |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |

**Necessary Skills for the 21st century Workplace: Hard Skills**

**Lesson:** Throughout the course, *Tools of the Trades*, students will show mastery of select skills necessary for a career in industry. The individual skills will be demonstrated by the instructor and select activities will be demonstrated by the students in order to show mastery of the topic. One example of these hard skills is a lesson pertaining to tiling. The hard skills will include planning a project, utilizing workplace mathematics, and executing the actual skill by completing a project. Students will record the steps taken to complete the project further practicing workplace written communication skills.

**Objective:** Students will demonstrate their ability to plan, prepare, and complete a tile project.

**Materials Needed:** tiles, grout, cement board, tile saw, scrapers, computers to research design ideas

**Class Periods:** 3 periods

**Steps:**

1. Research sheet provided by instructor will be completed by students utilizing a research tool such as a computer or phone with research capabilities. The research sheet will include information about the history of tiles and students will identify design styles and vocabulary associated with tiling.
2. After demonstrating the tools associated with tiling, students will each be responsible for planning and executing a 12x16 inch design in tile. The tile work will be judged by either another class, or other educators for the design and the quality of work, such as evenness of grout, etc. A rubric will be composed for the people evaluating their project.
3. After completing the tile project, students will research an example of tiles used in flooring for practical purposes or art and submit to the instructor. The variety of slides will be submitted electronically so the instructor can share the powerpoint with the class. While presenting, students will rate whether they like the particular example by rating the style by assigning a 1-3; 1 indicates they do not like the example, while a 3 indicates a strong like for the example. Another option is for the instructor to create a powerpoint presentation and present to students showing tiles throughout history and in different cultures. Tiles are not only utilitarian, but also are an art form, such as the tile mosaics found throughout Islamic art and architecture. After creating their own piece, students will have gained a deeper appreciation for what is involved.

**Necessary Skills for the 21st century Workplace: Interview Skills**

**Lesson**: The Importance of interview skills will be demonstrated by students conducting and engaging in interviews utilizing the START method, currently being used by Boeing in their hiring process.

**Objective**: working in cooperative groups, students will interview each other using STAR interview questions, then officially be interviewed by the instructor and adult volunteers

**Materials Needed**: STAR interview methods and questions

**Class Periods:** One class period to demonstrate, role play, and practice interview skills. Another class period to practice skills necessary for a successful interview.

**Steps**

1. Small groups of students will brainstorm the qualities of a successful interview. Share with instructor and class and write responses on board. Discuss eye contact, waiting for the interviewer to indicate they may sit, strong handshake, etc. Then small groups of students practice effective interview techniques.
2. Interview with an adult in order to incorporate the effective interview techniques. The interviewer will be provided with a rubric in order to score the interview.

