English and Literacy Integration in Career and Technical Education (CTE)

by

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Abstract

With the rise of enrollment in Career and Technical Education programs, the demand for English and literacy has increased. English and literacy integration in programs are vastly different from the traditional English classes that students receive at their home schools/districts. The purpose of integration in a Career and Technical Education (CTE) program allows the material to stay relevant to the students' area of study. The goal is to help students become ready to enter the workforce or attend a post-secondary college or program by being better readers, writers, and communicators within their field of choice. Integration of any academic subject requires a lot of planning and involvement with both program and academic instructors. Without program teacher involvement and support, the integration is not as effective as it could be when relating the academic subject to the Career and Technical Education (CTE) programs. This makes co-teaching a valuable resource to both academic and program teachers alike.

Keywords: Career and Technical Education, CTE, literacy, English, integration, lesson plans

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Part I: Introduction

"It is a common misconception that literacy instruction should occur only in English class" (Hilliard, 2016). English and/or literacy is embedded in many other school subjects, including career and technical education classes or programs. "...it is normal in the CTE classroom for students to be presented with a range of authentic texts, such as blueprints, technical manuals, computer programs, profit-loss statements, lab reports, and floor plans" (Hilliard, 2016). By teaching our students how to not only read but understand these authentic texts we are setting them up for success in their post-secondary ventures.

> "Lasting success in today's evolving economy increasingly depends on higher levels of academic proficiency, regardless of whether one intends to pursue education after high school. The ability to problem-solve, think critically, communicate, collaborate, design and innovate is essential in our globalized economy. Neither CTE nor traditional academic coursework alone can deliver these outcomes" (Hoachlander & Steinhauser, 2015).

CTE programs would be doing their students a disservice by not incorporating academic integration into their curriculum. By integrating academics such as English into these various CTE programs, we are working together to create well rounded students. The only catch is that both the academic teacher(s) and the CTE teacher(s) have to be on board; without support from the other the system fails.

"Career and technical education (CTE) has traditionally played an important role in U.S. secondary schools" (Jacob, 2017). It was so important that in 1917, federal funding was approved for CTE (this was before schooling was required in all fifty states). "CTE was designed to prepare youth for careers that required varying levels of education" (Dougherty & Lombardi, 2016, p. 333). These programs not only teach students about the skills needed to be successful in their field of study, but also the skills needed to be successful in any career path. Students in CTE programs also have more real-world opportunities available to them through internships and co-ops than if they continued to attend their traditional high school. CTE popularity declined in the 1980s, due to a push for college attendance and degrees. However, "[t]he past decade has seen a resurgence in interest in CTE" (Jacob, 2017). This resurgence has influenced many states to increase funding and encourage students to attend CTE programs. The CTE school where I am currently employed is seeing record high enrollment. Programs have upwards of thirty (30) students with students on the waiting list.

"Despite the essential role it plays in preparing students for college and careers, CTE carries an unfortunate stigma, a holdover from the days when CTE was no more than "vo-tech" or "shop class" (Jordan, Dechert, Seymour, & Heirholzer, 2016). With these negative stereotypes, many students who are seen as "high achieving" in traditional schools are directed away from attending CTE schools. CTE schools have been seen as a place for students who "...lack a promising future" (Jordan, Dechert, Seymour, & Heirholzer, 2016). It is amazing how many schools

decide which students should go to a CTE school and those who shouldn't. A handful of programs that are offered in CTE schools have college courses built right into them like ENG 101 and ENG 103 or even Business Math. The CNA and Cosmetology programs prepare students for the NYS exam and practical. Both of which require long hours of studying and practical training.

I was drawn to this topic because I am currently employed at Wayne Finger Lakes (WFL) BOCES as an English instructor at a career and technical center. Until I was employed at WFL BOCES, I was completely unaware that CTE centers had academic teachers on staff. I had always imagined having a "traditional" English teacher job and have had to adapt a lot of what I have learned in my undergraduate and graduate course to CTE instruction. This job has taught me a lot over the past two years and I still have a lot left to learn. I am assigned to work with about ten to twelve programs on our campus ranging from Cosmetology to Auto Body Repair to Computer Programming and Video Game Design. Each program is vastly unique and requires different English/literacy integration needs. The best part about my position is that my curriculum can be whatever I (and the program teachers) want it to be. Sometimes, it can also be the worst part of my job because there isn't much direction or curriculum written for English in a CTE setting. This is where I'd like to set my focus for this project.

Over the past two years I have slowly begun to build and adapt a curriculum for the majority of the programs that I work with. Some of these curriculums look similar to one another, but many are individualized based on student and even teacher

needs. A few of the programs that I work with have English 12 integrated into their programs because much of their curriculum can be seen as English or literacy. This means that a student can receive English 12 credit at our center if they cannot receive it back at their home school. These programs are a lot of fun because I get to be more involved with their projects and the material that is being taught.

My main focus when building my curriculum is to ensure that my students benefit greatly from any activities or material. A lot of my students don't understand why they have to complete English at the tech center when they have a traditional English class back at their home school. I remind them that I am there to help them succeed with any skills that they are going to need after high school. As Hilliard states, "[n]evertheless, it was my duty to teach the course content and provide students with strategies needed to read, write, listen, design, and speak in a manner that prepared them for life after high school" (Hilliard, 2016). A lot of my curriculum is centered on employability skills and helping ensure that our students are ready to attend college or start their chosen career path after they graduate.

Some classes that I work with have students complete business plans for either a salon or restaurant with many assignments that have strong English roots. These business plans allow students to use their imagination and design skills to create a salon or restaurant of their dreams. It is then the students' job to explain and present their ideas to a panel of their peers and administrators. To receive a technical endorsement for graduation, all students are required to have a portfolio put together with a resume, application, cover letter, and some examples of their best work (either

written or photographs documenting their work). These portfolios prepare our students to enter the workforce and have a great tool to use in their interviews.

For this project I would like to incorporate lesson plans from various CTE programs that I work with to emulate how English or literacy instruction could possibly be incorporated into non-traditional classrooms. I'd like to incorporate three (3) lessons from a few of the programs (one from each) that I work with, Electrical Trades, Culinary Arts, and Power Mechanics.

Part II: Literature Review

History of Career and Technical Education (CTE):

As early as the 17th and 18th centuries, philosophers found the importance of combining education and preparing individuals for specialty work. These philosophers "…acknowledged the role of apprenticeships and applied learning that led to the production of goods and services not otherwise made available by men of letters" (Dougherty & Lombardi, 2016, p. 329). The demand for skilled workers was on the rise and general education wasn't teaching the skills needed to produce these needed workers. "The demand for education linked to work skill development, initially given names like *manual arts* or *vocational education*, gave rise to what we now know as CTE" (Dougherty & Lombardi, 2016, p. 330). Many of these CTE programs around the world ensured that students not only receive the specialized training for a trade/career but also general education subjects like math and English.

The first act passed in the United States that supported CTE was the Smith-Hughes Act of 1917. The government had identified that "…vocational training was related to economic growth, and the interest in growth and employment spanned state boundaries" (Dougherty & Lombardi, 2016, p. 330). This act initiated the providing of funding and set the precedent that vocational training would only be a part of a student's day. More specifically it "…required separate state Boards for vocational education, separate funds, teacher preparation and certification, students and curriculum" (Cohen & Besharov, 2002, p. 15).

In 1984, the Carl D. Perkins Act was passed. This would be the "…first in a series of four federal authorizations to continue to fund what is now called CTE" (Dougherty & Lombardi, 2016, p. 330). With the most recent reauthorization taking place in 2006. The 2006 reauthorization "…declared a clear need to increase the focus of CTE on preparing students for postsecondary education" (Dougherty & Lombardi, 2016, p. 330). Another requirement of the Perkins Act is that it "…requires CTE schools to integrate academic standards into the CTE curriculum" (Pundt, Beiter, & Dolak, 2007). These reauthorizations have really expressed the federal government's commitment to keep career and technical education programs/schools alive and the importance of CTE training.

How Has CTE Changed Over Time?

The term career and technical education (CTE) is a relatively new term that emerged between 1998 and 2006. Originally CTE was called "vocational education", "vo-pro", or simply "shop class". Unfortunately, the term "vocational education" was "…often viewed negatively, based on the perceived concentration of lower ability individuals in these programs" (Dougherty & Lombardi, 2016, p. 331).

This stigma still follows CTE programs to this day. Many schools will only send their "problem" students (those that cause trouble) or those that don't do well in a traditional school instead of the students that really have a desire to study these specific programs. I know someone personally from high school that was refused the opportunity to study in the Advanced Manufacturing and Engineering program that our local BOCES offered because he was a good student and didn't cause problems.

Unfortunately, this hindered the chance to receive the opportunities after high school that many CTE student receive after graduation and made him disinterested in school the rest of his high school career.

In 1959, James Bryant Conant introduced new recommendations for how secondary schools should look. These new recommendations influenced the many changes that happened in the 1960s to today. His work stressed the importance of receiving a high school diploma. He also focused on the "…emphasis on the customization of education to suit individual needs and the importance of offering broad access to core academic coursework, as well as to electives (including vocational courses)…" (Dougherty & Lombardi, 2016, p. 331).

This is important because students need to be treated as individuals instead of being lumped together. As educators, we are aware that what works for one student may not work for another. Many of the students that attend CTE programs or schools learn better when they are working with their hands rather than in a traditional setting. This emphasis on individualization really assisted CTE programs by making them more accessible to students.

Unfortunately, in the 1980s there was a push to have students achieve higher standards and complete more rigorous schoolwork to graduate from high school. This new movement's focus was to get students to attend college. This push led to a decrease in CTE enrollment. The percentage of students who completed a CTE program went from 34 to 25 between 1982 and 1998. This created a huge deficit in skilled workers that are society is trying to make up for today. Looking at the job

market today "…suggests and oversupply of college-educated workers and a shortage of those with technical training" (Cohen & Besharov, 2002, p. 7).

Why is Literacy Important?

Before we discuss how literacy is integrated into CTE programs, we need to discuss the why. Over the past two decades, reading levels of students have declined. "Only 35 percent of 12th graders are considered proficient in reading and can demonstrate overall understanding of texts, make inferences, draw conclusions and make connections to previous experiences" (*CTE's Role In Adolescent Literacy*, 2009, p. 1). Unfortunately, I have noticed this in the classrooms that I have worked in. As the skill levels of students declined, the skills needed to be successful in life has increased. "The reading levels required for most entry-level jobs are well above that of the average high school student" (*CTE's Role In Adolescent Literacy*, 2009, p. 2). We are doing our students a disservice if they do not have the skills needed to be successful in their post-secondary ventures.

Literacy should be taught not only in traditional schools but also CTE programs/schools because:

> "Adults with low literacy skills have lower participation in the labor force, lower weekly and annual earnings, and less access to critical life-long learning. These individuals are also less likely to vote, participate in volunteer work or be engaged in their children's education, and are more likely to participate in public assistance programs or be incarcerated" (Hyslop, 2010).

By focusing on literacy, we are providing our students with a better chance to have more opportunities in life. CTE programs now require technical skills as well as academic skills. “Students must be able to read, comprehend, analyze and report on high-level information to be successful not only in their education program, but in their future careers” (*CTE’s Role In Adolescent Literacy*, 2009, p. 3). According to the International Reading Association, our students will “read and write more than at any other time in human history in order to perform their jobs, run their households, act as citizens, and conduct their personal lives…” (Reese, 2010, p. 23).

Literacy is also important because “…the inability to read and understand complex, technical materials tends to have more serious consequences…[u]se the wrong fertilizer in an agriculture program and you risk killing a bunch of crops…[f]ail to read a technical manual in manufacturing and you can damage machinery or parts. Misinterpret a patient’s chart in the health field, and he or she can get sicker” (Sawchuk, 2018). The program instructors and I stress this every day. I work with the CNA program on their writing skills because they need to be able to chart on patients clearly and properly so that other co-workers can understand them, while also coming off as professional. Thankfully, English is the most common academic that is integrated into CTE programs.

How is Literacy Incorporated into CTE Programs?

“Your content area is *what* you teach, but literacy can be the *how*” (Adams & Leininger, 2017, p. 1). Many CTE instructors that I work with claim that they aren’t comfortable teaching English/literacy skills because they aren’t English teachers.

However, most of the material or curriculum (that they have been teaching for years) in their programs requires a literacy skill of one form or another. This is also known as disciplinary literacy. Many CTE instructors "…are often hesitant to engage in literacy learning because we don't want to lose the hands-on learning time that is essential to career preparation" (Adams & Leininger, 2017, p. 2). Students that attend technical schools are there because they don't do well in a traditional school setting. Knowing this also adds to the instructors' hesitation.

In the textbook *But I'm NOT A Reading Teacher! Literacy Strategies for Career and Technical Educators*, there a few tips to help keep students engaged. One important one that stood out was the incorporation of physical tools and/or parts. By incorporating these hands-on pieces, the lessons become more authentic as well. Another tip is to incorporating writing in other ways that aren't just essays. Many students, even those in traditional schools don't like writing essays. By using other methods, students can still practice their writing their skills. This textbook is a great resource to have on hand as it provides many great activities and suggestions to incorporate these activities within the CTE classroom.

In the article, "Literacy Skills in Career and Technical Education Classes", the author provides us with four specific literacy strategies that can be used in CTE programs. Hilliard's first strategy is to have students "read and summarize an article" (Hilliard, 2016). This strategy allows students to take information from a source and write down in their own words their thoughts and/or what they learned. This is a much-needed skill to help prevent plagiarism, as so many students are tempted to

copy and paste. Asking questions is the next strategy. By having students learn how to question, we are creating life-long learners. Many students are afraid to ask questions and would rather not know than to ask. This can be a critical mistake in the workforce that could lead to severe consequences.

The third strategy is reflection. This can be done by having students "…reflect on what they learned, connect it to prior knowledge, and create a proper written response" (Hilliard, 2016). After students complete the reflection assignment, discussions and questioning can take place. Lastly, Hilliard states that students should be able to support a problem with evidence. "A CTE curriculum is often problem-based; it challenges students to evaluate a problem, devise a solution, and present evidence to support the solution" (Hilliard, 2016). This can be done in any program that a CTE school has to offer. Teachers could present students with various car problems in Auto Technology and students have to research and present what needs to be repaired and why. In Cosmetology, the teacher can present different issues a client is having. It would then be up to the students to recommend a treatment or correction and explain why they chose that solution.

"Research has shown that one of the best ways to help students gain literacy skills is to motivate and engage them with content related to their interests" (*CTE's Role In Adolescent Literacy*, 2009, p. 3). By relating to student interests and the real world, students can make connections and work on their literacy skills. "Students in health care programs often read and discuss novels containing medical issues, such as *Eleventh Hour* and *My Sister's Keeper*, while those preparing for careers in education

might read *Tuesdays with Morrie* or *A Child Called "It": One Child's Courage to Survive* and report on the content in various ways" (*CTE's Role In Adolescent Literacy*, 2009, p. 3). Readings don't just have to be novels but can also be magazine or newspaper articles which can be paired with smaller writing assignments.

One thing that I'd like to incorporate in my curriculum are these three goals that were set by the Davidson, North Carolina district. These goals are: "[s]tudents will read a career-related article twice monthly and demonstrate understanding in a writing opportunity, [s]tudents will write weekly to complete CTE assignments, [s]tudents will prepare a written report and/or research study each sentence in every CTE class" (Reese, 2010, p. 24). These are reasonable goals that can be accomplished well within the short time periods that academic teachers receive. The goals also keep students reading and writing more regularly. Another strategy that I like to focus on is vocabulary development. "…vocabulary development is a key area of CTE focus…" (*CTE's Role In Adolescent Literacy,* 2009, p. 5). These strategies can include word walls, journals, prediction charts, and flashcards. Vocabulary can be very career specific. If students do not understand the words in their field of study, then they won't be equipped with the knowledge to be successful and to sound intelligent. Students who work with tools need to be able to identify said tools by their proper name and know how to properly use it. Health Professions students should know the different body systems and anatomy, proper terms, and all the legalities that go along with nursing. "Literacy is that magic mixture of connecting, teaching, and challenging. It's the universal job skill. It's the great elevator, the equalizer, the skill

set that separates poor from wealthy, successful from failing, engaged from apathetic" (Koontz, 2019).

The Importance of Internships & Certifications in the CTE Setting:

"Within the broad sectors of health care, education, and business, professionals with varying levels of education and skill sets are needed. Thus, the vast majority of students need some exposure and readiness to enter these fields. Importantly, students need this exposure in high school" (Dougherty & Lombardi, 2016, p. 333). These specific skills are traditionally taught in CTE programs.

Another advantage to CTE is that many programs coordinate internships or other work-based learning opportunities. These opportunities allow students to get real-world experience that could also lead to more opportunities like job offers down the road. CTE teachers come from industry, because of this they have many established relationships with employers and use these relationships to help students find a placement for their internships. "Moreover, they are sometimes able to persuade employers to hire students whose credentials do not look impressive…." (Cohen and Besharov, 2002, p. 13).

Another benefit students can receive from attending a CTE program or school is the opportunity to obtain certifications. These certifications aren't just limited to a few programs, many programs offer a variety of certifications. At the end of the two-year program, the Health Professions program gives students the opportunity to sit for the state exam to become licensed CNAs. Many of the construction programs require students to complete the OSHA10 certification. The Culinary Arts program offers the

ServSafe certification, which is a requirement to work in many restaurants. All of these opportunities can open up more possibilities for our students, while also giving them something to add to their resume.

The use of various literacy strategies can be helpful for students as they prepare for certifications by focusing on vocabulary. “Quick, frequent assessment, such as a weekly quiz, can help reinforce terms with students so that they have the language needed for the certification” (Springs, 2020). The assessments that students are required to pass to receive a certification are written at an advanced reading level. If the students cannot understand the assessment or what is being asked, then they will be

unsuccessful. Another way to help students retain information for certification assessments is to create connections between the material being taught and the real world.

What Does Integrated English/Literacy Look Like?

Integrated English or literacy is exactly how it sounds. English curriculum is integrated or blended in with the CTE program curriculum naturally. Many CTE schools use this method, which is known as “push-in”. “This model developed as some of the school’s academic teachers pushed into the career and technical programs and co-taught with the instructors” (Pundt, Beiter, & Dolak, 2007, p. 28). This is the method that is currently used at Wayne Finger Lakes BOCES, where I am currently employed. All of the academic teachers “push-in” to many of the classrooms, with regularly scheduled timeslots. Other CTE programs will only integrate academics

"…on an 'as needed' basis and is driven by the CTE teacher. This may mean that there are sizeable differences in what students receive" (Shafer, Jones, Arntsen, Leavens, 2017, p. 7).

Our curriculum is "…specifically designed to incorporate real-world communication arts and math skills, in preparation for college and career readiness…" (Tews, 2011, p. 44). With such a variety of programs, it is our duty to fit the needs of each CTE program that we work with. Our goal is to meet with each program for thirty minutes to one hour a week.

With the "push-in" model, "CTE teachers gain a much better understanding of math and reading anchors, while math and English teachers gain insight into how to apply math and reading anchors to CTE labs" (Pundt, Beiter, & Dolak, 2007, p. 29). I have really enjoyed working with this type of model because I have been able to learn a lot about each of the programs that I work with. If I didn't have the opportunity to work in the shops or classrooms with the teachers, I wouldn't have been able to relate English and the CTE programs together. The students are also more engaged in their own classrooms during the academic lessons, especially when the teacher is just as involved.

One thing about academic integration is that, "[l]ittle is offered on the topic of academic integration procedures and practices by NYSED or other outside sources, leaving organizations to identify their own definition, strategies, and approaches" (Shafer, Jones, Arntsen, & Leavens, 2017, p. 5). This allows the teachers to build their own curriculum with the program teachers. However, it can be a little unnerving

wondering if you are doing enough or the right things. A lot of my curriculum (as well as other CTE English teachers) focuses on technical writing like resumes, cover letters, and "time-sheets", as well as vocabulary for different programs, note-taking or textbook reading skills, presentations, and business projects. Due to the fact that a lot of my curriculum is related to CTE programs also helps keep students engaged, interested, and motivated to complete English assignments. Many of our students walk out of their programs with beautiful portfolios to present to future employers.

Integration and Co-teaching:

> "We need a new approach that joins together CTE and core academics. That approach would encourage teachers of career and technical courses and those teaching academic courses to work together to align their coursework and jointly teach cross-disciplinary projects that tackle real-world problems. Both CTE and academic teachers would embrace workplace learning opportunities in partnership with employers, to help young people understand the breadth and depth of career opportunities…" (Hoachlander & Steinhauser, 2015).

This quote really emphasizes the need for academic teachers and CTE teachers to work together. I have experienced teachers that are not interested in integrating academics or using academic time as free time for themselves. This attitude towards academics is then transferred to the students who don't think they have to participate and disengage from the lessons.

Academic teachers interact with a lot of students when working with a variety of programs. “The student load for academic integration teachers can be very large, ranging from 60 to over 1,000 students in some cases. This directly impacts their ability to provide direct instruction in the CTE classrooms for their specific content” (Shafer, Jones, Arntsen & Leavens, 2017, p. 7). This is why CTE program instructors need to stay involved and make contact with the academic staff. “Integration support is generally being provided on an “as needed” basis and is driven by the CTE teachers. This may mean that there are sizeable differences in what students receive” (Shafer, Jones, Arntsen & Leavens, 2017, p. 7). Therefore, if a CTE instructor does not communicate with the academic teacher then the academic teacher will put their focus on the programs that are asking for the help. However, it is just as important for the academic instructor to check in with the programs periodically to make sure no instruction or support is needed.

For some programs English 12 is integrated into their classroom because it was proven that enough English work is done in class for students to receive a credit if need be. This can be done with or without the academic teacher present. However, I found it to be good practice to focus on the classes with integrated English 12 to ensure that there is enough support and skills are being met.

English and literacy integration in programs require a lot from both the CTE instructor and the academic teacher. Both instructors need to be sure to set aside time to co-plan. This should be a regular meeting where teachers can talk about curriculum goals and plan to meet said goals. This could also include trading materials or

assisting in the setup and implementation of activities or projects. For me, this is usually very informal. As it is my third year, I have a good idea of what teachers want and where they are headed. However, I do try and meet with them once a week before the next class to plan out what we are doing and get prepared.

Co-teaching has to be one of the most important tools to both the academic and CTE instructors. “One of the benefits of co-teaching is that the unique perspectives and strengths of general educators and special educators or other specialists are brought together to create teaching approaches and instructional strategies that could not occur if just one teacher were present” (Cook & Friend, 1995, p. 5). Due to the fact that many CTE schools use the “push-in” model, the academic teacher goes into the CTE programs classroom and/or shop to teach rather than pulling specific students out for assistance. This model makes co-teaching that much more accessible. This method has been so important as I have learned how to become an academic teacher in the CTE setting. I am not an expert in any of the programs I work with and it is important for me (and my students) to be able to ask questions to help relate any English work to any specific program. Unfortunately, “co-teaching is an under-developed and under-utilized strategy” (Shafer, Jones, Arntsen & Leavens, 2017, p. 9).

Part III: Contributions to the Profession

Inspiration:

English and literacy curriculum in the CTE classroom can look very similar to traditional English classes. I was hired at Wayne Finger Lakes BOCES (WFL BOCES) as an English Instructor at one of their CTE centers three years ago. I was unaware that academic teacher positions existed until I began working at BOCES as a teaching assistant. When I was hired, my principal tasked me with increasing the integration of literacy and English in more programs. I, along with the program teachers that I work with, have a lot of creative control over the English/literacy curriculum that we implement. The following are three (3) examples of lesson plans that I have implemented over the course of my time at WFL BOCES.

Electrical Trades:

Unit Summary: Electrical Inventors

Unit Author	Chelsea Caswell & J. Buck
Unit Plan Title	Electrical Inventors
Subject Areas	English Language Arts & Electrical Trades
Grade Level	11th
Essential Questions	• Who are some electrical inventors that helped shape what electricity is today? • What did these inventors invent? • Do we still use these inventions today? • What specific **electrical** contributions/inventions did your inventor come up with?

	• How will you present this information to your classmates?
Unit Summary	During this unit, students will be conducting research on electrical inventor and creating a presentation. Students will be then asked to present their presentation to the class and teach us about their inventor.
Standards	See individual lessons.
Approximate Time Needed	5 – 1-hour sessions
Procedure	Session 1: Introduction to Unit & Project Session 2: Project Workshop Session 3: Project Workshop Session 4: Presentations Session 5: Presentations
Materials Needed	• 1:1 Devices • Presentation Software (PowerPoint or Google Slides) • Smart TV • Project Directions (available digitally & printed) • Teacher Exemplar • Grading Rubric
Internet Resources	• Internet access to websites for research
Accommodations	• Printed & digital instruction sheets • Access to exemplar of presentation & presentation demonstration • Access to teachers during workshop time to ask questions, help finding credible sources, proofreading, assistance with computer issues, etc. • Students able to work in a group of two (2)
Final Assessment	For the final assessment, students will be asked to present their research and presentations to the class. Students will also be expected to actively participate by asking or answering questions after presentations.

Teacher(s): Caswell & Buck (Electrical Trades Instructor)
Grade: 11th Grade
Unit: Electrical Inventors
Lesson 1: Introduction

Standards:

- Writing Standard 2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- Writing Standard 6: Conduct research based on focused questions to demonstrate understanding of the subject under investigation.
- Writing Standard 7: Gather relevant information from multiple sources, assess the credibility and accuracy of each source, and integrate the information in writing while avoiding plagiarism
- Language Standard 1: Demonstrate command of the conventions of academic English grammar and usage when writing or speaking.
- Language Standard 2: Demonstrate command of the conventions of academic English capitalization, punctuation, and spelling when writing.

Purpose:

The overall purpose of today's lesson is to introduce students to the presentation project about Electrical inventors. Mr. Buck has asked me to come in to head up this project because after some questioning, it was apparent that students didn't know about the origins of electricity, inventions, and the people that made it possible.

Objectives:

Students will be able to…

- Start to prepare a well-organized slideshow about their inventor
- Summarize information about their inventor (life & inventions/contributions)
- Work collaboratively within their group
- Conduct research, choose credible sources, and select quality information

Materials:

- 1:1 device
- Internet access
- Printed or digital access to project instructions
- Exemplar presentation
- SMART Board/TV
- List of inventors (cut into strips for random drawing)
- Paper to write down group selections

Lesson:

- Welcome the class and begin explaining what we will be discussing today

- On the SMART Board, materials will be up and ready to allow for smooth transitions
- Opening question(s): "Who can name some famous electrical inventors?" "What did they invent?"
- After this discussion, I will draw their attention to the list that Mr. Buck and I created together. This list has around twenty (20) inventors that greatly impacted the electrical field. I will read the list aloud as they follow along and ask if they have heard of this person or what they think they invented.
- Pass out paper copy of directions and transition to the directions on the SMART Board (that are also uploaded onto Google Classroom).
- Go over the directions and ask, "Does anyone have any questions about what we just discussed?"
- Students will then be shown an exemplar of a presentation.
    - I do this to ensure that students receive this information as this inventor is no longer on the list
    - Provide visual learners a visual example of what the program teacher and I are looking for
- After I present, I will ask the students questions about my presentation and go over organization and research tips.
    - Example: "Don't use Wikipedia.", "Do not copy and paste information, put what you find in your own words.", "Summarize your research, don't give us paragraphs, use bullets and elaborate – it is your job to teach us."
- Students will also have time to ask questions about our expectations, research required, and sources they can use.
- Due to the class size this year, students will be paired of into groups of two (2), with one group of three (3). Per the program instructor's request, students will be able to pick their partner(s). These will be written down (and uploaded to Google Classroom) to ensure students who are absent are up to date.
- Students will then be randomly assigned an inventor (chosen out of a hat). There are two left over that can be offered up for extra credit if any groups are interested.
- Students will have the rest of the hour to begin their research and get introduced to their inventor.
- Instructors and TA will be walking around the room to help students that may have any questions, computer issues, or general questions about their inventor.
- When finishing up the session, remind students that they will have more class time to work on these next week.

Assessment:

For this specific lesson, the main form of assessment will be formative. Students will be assessed on how well they listened to the discussion of directions and the presentation and research tips that were mentioned. Students will also be assessed on

how well they begin to work with their partner, questions that they ask, and if they are taking advantage of the time available to them to work on their project.

The summative assessment will be the PowerPoints and oral presentations that will be completed at a later date.

Electricity Inventors Presentation

1st slide:

- Name of inventor
- Your name

Next 5-8 slides:

- Provide a brief history of your inventor
- Information pertaining to electricity/electrical contributions
  - What did they invent?
  - Explanation of the science behind the invention
  - Are their inventions used today?
  - 2+ pictures of inventor and/or inventions

Last slide:

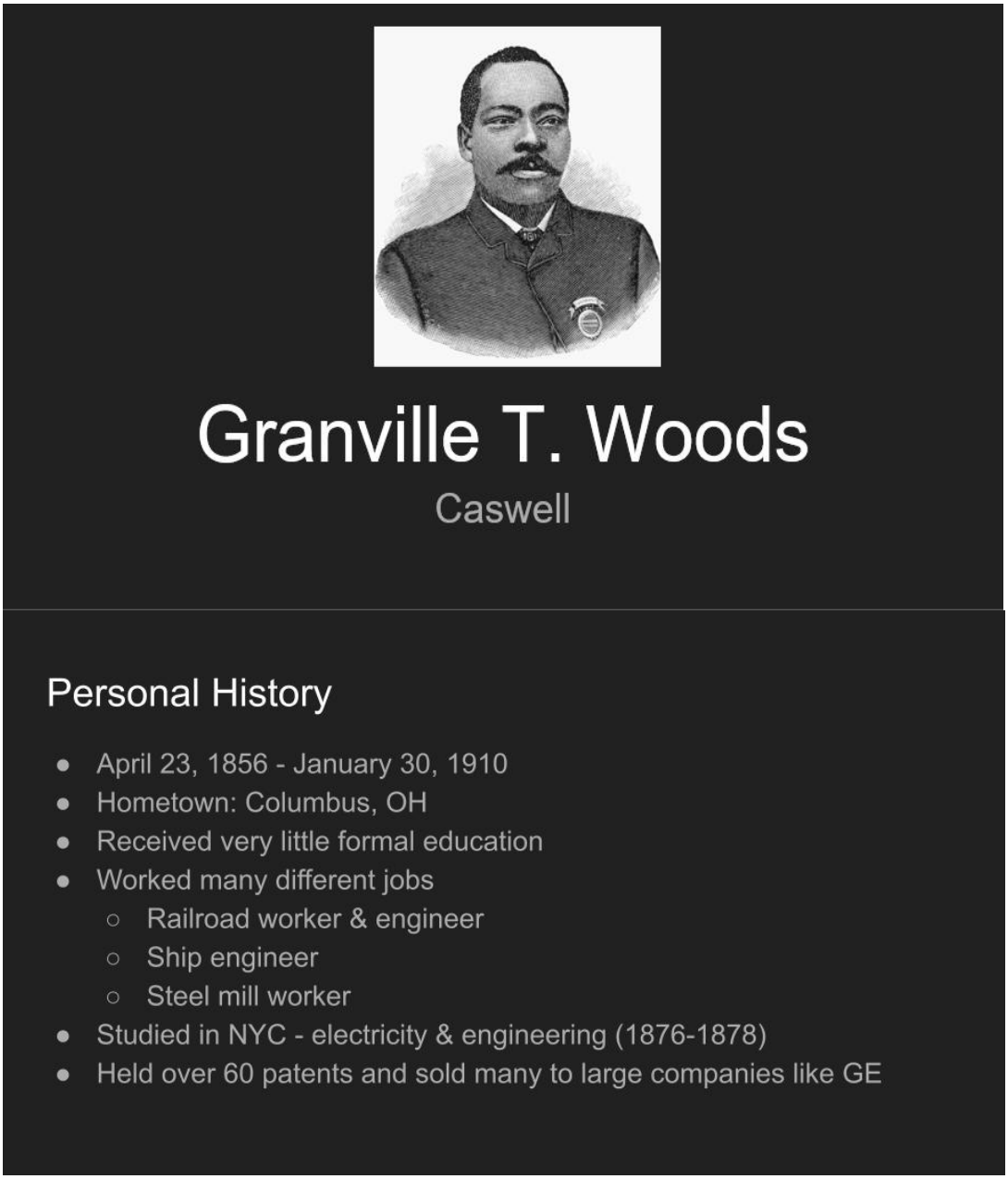
- REFERENCES SHOULD BE INCLUDED ON THE LAST SLIDE

You will have today and next week to work on your presentation

List of Inventors

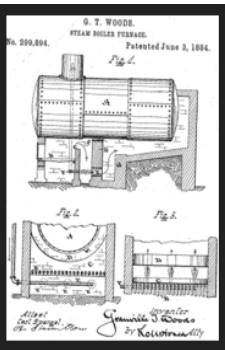
1. André Marie Ampére ----------
2. Benjamin Franklin ----------
3. Thomas Edison ----------
4. Georg Simon Ohm ----------
5. Nikola Tesla ----------
6. Alessandro Volta ----------
7. James Prescott Joule ----------
8. Michael Faraday ----------
9. George Westinghouse ----------
10. James Watt ----------
11. William Stanley ----------
12. Charles Brush ----------
13. Robert Lee De Forest ----------
14. Joseph Henry ----------
15. Heinrich Hertz ---------
16. Joseph Swan ----------
17. Samuel Morse ---------
18. James Clerk Maxwell ----------
19. Guglielmo Marconi ----------
20. Jack Kilby ----------
21. Frank J. Sprague ----------

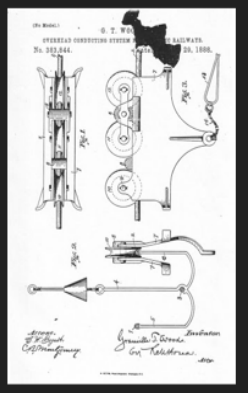
Exemplar:


Granville T. Woods
Caswell
Personal History
April 23, 1856 - January 30, 1910
Hometown: Columbus, OH
Received very little formal education
Worked many different jobs
Railroad worker & engineer
Ship engineer
Steel mill worker
Studied in NYC - electricity & engineering (1876-1878)
Held over 60 patents and sold many to large companies like GE

Early Career & Inventions

- 1880 - moved to Cincinnati & started his company to “develop, manufacture and sell electrical apparatus” (Biography.com)
- 1888 - Invented the “troller”
  - Overhead electric conducting lines for railroads
- 1889 - “filed first patent for improved steam boiler” (Biography.com)



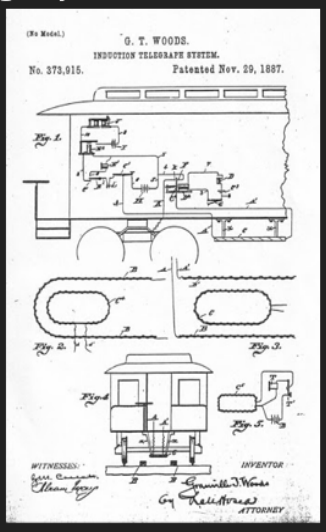


Telegraphony

- Invented in 1885
- Combined the telegraph and the telephone
- Allowed phone calls & telegrams to be sent over the same line
- Bought by Alexander Graham Bell’s company
- Made it possible for Woods to be a full-time inventor

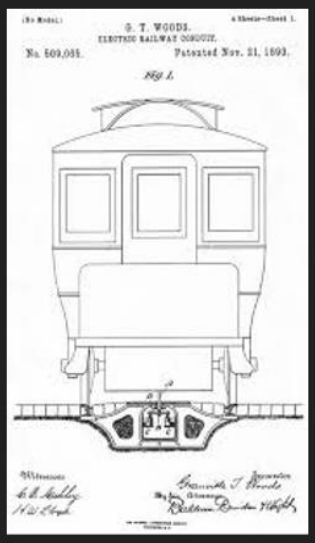
Synchronous Multiplex Railway Telegraph

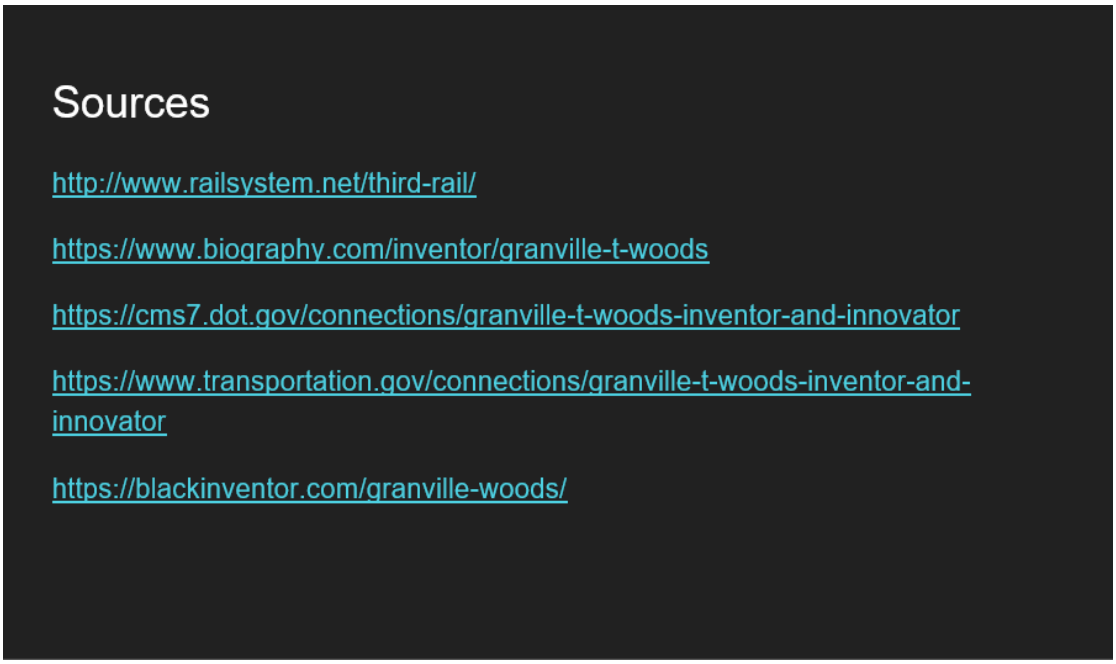
- Made it possible for communication between moving trains & stations
- Increased capability to know where trains were at all times
- Thomas Edison tried to take credit for Woods' invention twice!



Power Pick-Up Device

- More commonly known as the "third rail" today
- A way to provide power to railcars
- This conductor line is placed next to or in the middle of existing tracks





Curriculum Justification:

This is a great representation of how English can be integrated into a CTE program. This project can be adapted to be incorporated in many of the other programs that I work with. For example, I could come up with a list of pioneers in the healthcare industry for the CNA program that I work with or inventors in the automotive industry for Automotive Technology. I also do a very similar project already for Culinary Arts about famous chefs. This project requires students to conduct research, organize information in a coherent manner, and has a presentation piece where students teach their fellow classmates about their topic. This really puts the student in the center of the classroom and accountable for the information, rather than having the students listen to multiple lectures about these great inventors/pioneers.

I recently received feedback from a formal observation about this very lesson. My principal was very impressed that the students just accepted the project as another Electrical Trades lesson; there was no groaning that the English teacher was doing another English lesson. He was also the one that mentioned that I could bring this lesson around to other programs because it integrated so well.

Culinary Arts:

Unit Summary: Senior Restaurant Project

Unit Author	Chelsea Caswell & B. Yearwood
Unit Plan Title	Senior Restaurant Project
Subject Areas	English Language Arts & Culinary Arts
Grade Level	12th
Essential Questions	• If you could own your own restaurant, what would it look like? • What type of food would you serve? • Where would it be located? • What would you need to run your restaurant? • What type of partnership would you have? • What is the competition like in your area? • What will your menu look like? • What will the layout of your restaurant look like?
Unit Summary	Over the course of this unit, students will create their own restaurant. They will write a three-page paper discussing their restaurant, costing menu items, creating a menu, drawing a layout or diorama of their restaurant, and presenting their restaurant idea to their fellow classmates and administration.

Standards	See individual lessons.
Approximate Time Needed	6 months – **1-2-hour sessions once a week**
Procedure **(See attached document below for entire outline)**	Part I: Outline & Paper (ELA) Part II: Food Costing (Math) Part III: Menu Development (ELA) Part IV: Presentation (ELA)
Materials Needed	See individual lessons
Internet Resources	• Internet access to websites for research • Google Classroom • Word and presentation software
Accommodations	• Printed & digital instruction sheets • Access to exemplars of restaurant papers, menus, and presentations • Access to teachers during workshop time to ask questions, help finding credible sources, proofreading, assistance with computer issues, etc.
Final Assessment	For the final assessment, students will be asked to present their restaurant, menu, and layout to the class. Students will also be expected to actively participate by asking or answering questions after presentations. They will also be assessed on the individual pieces (paper, menu, layout, costing sheets) leading up to the presentation.

Project Outline (below) Created by B. Yearwood

WTCC Advanced Culinary/ 2020-2021
Menu Planning, Menu Design & Food Costing Project

Objective

Each student is able to develop a menu concept, create and design his/her own menu that supports the concept, and cost out recipes based on his/her knowledge and understanding of the concepts learned in WTCC Advanced Culinary Class.

Due Dates for Final Copy

- Final Project, drafts and all edits:
- See Project Due Date Sheet for project part due dates.

Summary of Requirements

- The menu is to be done in a format that customers can use and understand.
- The menu layout and design is to meet acceptable standards for ease-of-use and readability.
- The menu is to incorporate descriptive terminology in each offering, as well as prices that meet the criteria for your target customer population.
- Collect and present five recipes as outlined in Part III Food Cost Analysis
- A food cost analysis is to be completed for recipe menu items and **one must be an entrée (this is to include a protein, starch & vegetable to total 3 Food Costing Outs)** with corresponding support for the selling price. Worksheets are provided to complete this analysis. *(An exception may be made with prior approval from the instructor if the menu concept doesn't warrant an entrée.)
- The completed menu is to be **professional** (w/printing & cover), free of spelling and grammatical errors.
- The final menu is to be presented to the class in a brief (5-7 minute) professional presentation discussing the concept/theme behind the menu and rationale for menu item selections
- Total of 14 menu items only. Use the KISS Method – Keep it Simple.
- Project is a major part of total course culinary grade, math grade, and ELA grade.

Grading Criteria

Part I: Paper (30 points) - You are to prepare a paper providing operational information on the menu concept you design. Typed, double-spaced with 1" margins and 12 pt. font. Your paper is to include the following:

A. **Paper**
1. Type of Ownership
2. Location
3. Type of operation
4. Concept
5. Target Market
6. Competition Outlook
7. Décor and Atmosphere
8. Service Style
9. Estimated Personnel
10. Production needs

Menu Concept Development	
1. Type of Ownership	Examples include private ownership, partnership, franchise
2. Location	Determine your location: downtown/city, suburban, strip mall, shopping center, college campus. Indicate type of building and specific information about the site: Rochester, NY, West Palm Beach, Florida, San Francisco, CA, Pueblo, Colorado, Phelps, NY, and Bar Harbor, Maine. **BE SPECIFIC.**

3. Concept / Theme & Type of Operation	Determine the concept of your restaurant, or institutional operation that you want your menu to reflect. Examples include commercial and non-commercial establishments, such as fine dining, casual and/or family dining, fast-food service, catering, hospital, school, health care facility, officer's club, or kiosk.
4. Target Market	Determine the specific group of clientele that you are trying to attract to dine at your establishment. What are the demographics: income, age, other characteristics, food preferences?
5. Competition Outlook	Who are your competitors? How do you measure up against them?

	Why would customers select your restaurant over others? What would attract them?
6. Service Style	What kind of service is your wait staff delivering to your guests? Quick service, over the counter, full-service, sit-down, table service, team approach, single server approach, French, Russian, family style of service?
7. Atmosphere	Describe the décor and ambiance emphasized throughout your operation.
PERSONNEL AND PRODUCTION NEEDS	
8. Personnel/Staffing Needs	Provide a preliminary assumption of your personnel needs and the skill level required to do the job according to your standards. For example, does your menu require highly skilled personnel for production and service or can you use people with limited culinary and service skills? Will you require a large staff to execute and serve this menu or can it be done with two or five people? Remember to include this information in your paper.
9. Production Needs	Briefly discuss the major pieces of equipment you will need to execute your menu. You my draw a diagram or floor plan of the kitchen layout or briefly describe your equipment and storage needs and submit this information in your paper.

Part II. Food Cost Analysis for 3 menu items/ 5 recipes – (30 points)
Use the worksheets provided in this outline and in class. One of the menu items is to be an entrée with 2 sides. A copy of this project outline, excel costing out master sheet, excel ratio master sheet, and our price lists can be found in the student drive

A. A minimum of **five** *Standardized Recipe Forms* and *Food Costing Calculation* Worksheets for each *Standardized Recipe Form* are to be utilized and to include:
    1. Cost of recipe ingredients
    2. Cost per portion
    3. Total food cost per menu item
    4. Calculation of mathematical menu price per menu item
    5. Calculation of selling menu price per menu item

B. A *Food Costing Calculation* Yellow Costing Out Worksheet and Blue Ratio Sheet completed for each *Standardized Recipe Form* showing all calculations for obtaining each menu items' food costs, menu item pricing, etc.

C. List all reference sources for menu item recipes.

D. List all pricing sources used for calculation of food costs.

Food Cost Analysis and Menu Selling Price	
1. Collect five recipes	You are required to have actual recipes (documented and referenced) for five items on your menu. Collect recipe ideas for the actual menu items that are consistent with the market target you are aiming to attract and are consistent with the concept of your operation. One menu item is to be an entrée w/ 2 sides (which equals 3 recipes). **These selected recipes are to be used to do a cost analysis and selling price exercise as part of the menu project requirement. Note: Do not scale recipes on websites to try to make your costing outs easier (for smaller number or even one portion).**
2. Recipe Costing	To cost out recipes you may use wegmans.com, the yellow Sysco price list, or prices from the ***6th Edition of the Book of Yields,*** and/or area markets, e.g. The Public Market, Tops, Wegmans.com, B.J.'s, Sam's Club, Palmer Foods. Websites such as Pea Pod.com is another source, enter your restaurant zip code; also http://www.ccsf.edu/library/alice/subjguides/foodcost.html

	Please make sure to **state the sources** used to obtain your prices.
3. Complete the Standardized Recipe Forms	Complete Standardized Recipe Forms for each recipe that corresponds with your menu items: this includes a cover sheet, yellow costing out sheet, and blue ratio sheet for each recipe. Costing out (yellow) sheets and blue (ratio) sheets can be done in Excel.
4. Recipe Resources	Recipe resources such as cookbooks, Internet food Web sites, food magazines, etc., or an original recipe are to be used for the menu item pricing. All recipes are to be referenced so state your source. The same recipes selected, are the ones to be used to demonstrate food costing, menu pricing and nutritional analysis.
5. Truth in Menu Laws	All written descriptions for your menu items are to be in compliance with the *Truth –in-Menu Laws.*
6. Price Calculation	**Show all work** for mathematical pricing and selling price calculation for each of the three menu items. Remember to state pricing source(s) for food cost calculation. (see box 2 above recipe costing).
7. EXTRA CREDIT	**For an extra 5 points:** Show the evidence of nutritional content for any menu item(s) making a health claim, (e.g. low fat, low carb, low cal). To determine the nutritional content of a recipe it is acceptable practice to do one of the following: • Calculate nutrient content using a computerized database (try the Diet Analysis Plus or online at **www.nat.uiuc.edu**) • Calculate by hand using a reliable source such as the USDA Handbooks, **Find an already calculated recipe from a magazine or cookbook that provides the nutrient analysis. Again, remember to state your source if you copy a recipe.**

Part III: Menu Development (30 points): You are to design and create a functional, quality menu that supports your operational concept. Your menu is graded on the following criteria:

Mechanics:

a. Cover is attractive and accurately represents theme/concept.
b. Color combinations & font type coordinated & eye appealing.
c. Print is legible and easy-to-read. Font size appropriate and consistent
d. Headings are prominent and of sufficient size. Columniation consistent & appropriate white space.
e. Wording and style of menu are in keeping with the décor, atmosphere and theme of operation.http://smallbusiness.intuit.com/news/Business-operations/19319168/Selecting-an-Ownership-Structure-for-Your-Small-Business.jsp
f. Menu appears professional and is proper size in relation to the restaurant concept.
g. Menu graphics are attractive and consistent with the theme/concept. Creativity to menu/concept.
h. Information is given regarding address, operational hours, phone/fax and website.

Item Selection:

a. Menu items are reflective of and consistent with the theme or concept of the operation described.
b. There is variety in flavors, textures, colors, and consistencies described in each menu item.
c. Signature menu items are well placed for item emphasis.
d. The menu has enough selection to appease the targeted market.
e. Preparation methods vary and are described.
f. Attention is paid to nutritional concerns.
g. Attention is given to current trends in customer food preferences for given target market.

Menu Item presentation of Wording & Menu Comprehension:

a. Effective descriptive words are used to indicate menu item qualities.
b. Wording is easy to understand and relatively simple.
c. Descriptions are free of spelling and grammatical errors.
d. Menu items are presented in a logical order
e. Print is legible and easy to understand.
f. Prices are clearly presented.
g. Prices are consistent with the style/concept of the operation and the potential market target.
h. Adequate white space between menu items. (words are not crowded or menu items).

i. Headings are prominent and of sufficient size.
j. Signature items, specials, or nutritional claims are prominently highlighted and appropriate.

Part IV: Presentation, this is a requirement for the college course at MCC): Prepare a PowerPoint Presentation to share your menu concept and menu design with the class. 5 – 7-minute oral presentation on your concept, market target, menu, etc. ***Professional chef attire is required.***

Budget Time wisely and make sure to include:

a. Visual Aids – Power point (3-5 slides), overheads, handouts, poster boards, copy of menu
b. Presentation - concept, menu items, ownership, target market, etc.
c. Professional business attire.
d. Make sure you have **extra copies** of your report and your menu for classroom circulation.

PROFESSIONAL PRESENTATION	5-7-minute professional oral presentation as described in assignment Part III, page 3.

Grading Criteria Sheet

PART I: Written Report (30 total points)

Paper to provide background information on the menu designed. The paper is to include the following in proper format:

a. Type of Operation
b. Type of ownership
c. Location
d. Concept
e. Target Market (Clientele)
f. Competition Outlook
g. Décor & Atmosphere
h. Service Style
i. Estimated Personnel Needs
j. Production/Equipment needs

PART II: Food Cost & Recipe Source Sheets (30 total points)

a. Five (5 Standardized Recipe Forms completed for the three menu items selected, one of which is an entrée*, including cost per portion, calculation of menu price and total food cost of recipe. *(An exception may be made with prior approval from the instructor if the menu concept doesn't warrant an entrée as described in requirements above.) Costing calculations consistent with the menu item sales price.
b. A Food Costing Calculation Worksheet is completed for each Standardized Recipe Form showing calculations for obtaining each menu item.
c. Items' food costs, as well as the listing of references for the menu recipes and mathematical and selling pricing.
d. Extra Credit – Nutritional analysis on one menu item. (5 points extra possible)

PART III: Menu Development (30 total points)

Menu Mechanics (10 points)

a. Cover is attractive, professional and accurately represents theme/concept.
b. Color combinations & font type coordinated and is eye appealing.
c. Print is legible and easy-to-read. Font size appropriate and consistent
d. Headings are prominent and of sufficient size. Columniation consistent and appropriate white space.
e. Wording and style of menu are in keeping with the décor, atmosphere and theme of operation.
f. Menu is proper size in relation to the restaurant concept.

g. Menu graphics are attractive and consistent with the theme/concept. Creativity to menu/concept.
h. Information is given regarding address, operational hours, phone/fax and website.

Item Selection on Menu (8 points)

a. Menu items are reflective of and consistent with the theme or concept of the operation described.
b. There is variety in flavors, textures, colors, and consistencies described in each menu item.
c. Signature menu items are well placed for item emphasis.
d. The menu has enough selection to appease the targeted market.
e. Preparation methods vary and are described.
f. Attention is paid to nutritional concerns.
g. Attention is given to current trends in customer food preferences for given target market.

Presentation of Items on the Menu (12 points)

a. Effective descriptive words are used to indicate menu item qualities.
b. Wording is easy to understand and relatively simple.
c. Descriptions are free of spelling and grammatical errors.
d. Menu items are presented in a logical order
e. Print is legible and easy to understand.
f. Prices are clearly presented.
g. Prices are consistent with the style/concept of the operation and the potential market target.
h. Adequate white space between menu items. (words are not crowded or menu items).
i. Headings are prominent and of sufficient size.
j. Signature items, specials, or nutritional claims are prominently highlighted and appropriate.

PART IV: Presentation (10 points)

Deliver a 5 – 7-minute oral presentation based on your menu concept.

a. Professional quality of visuals used: overheads, PowerPoints, handouts, poster boards.
b. Concept, ownership, atmosphere, etc. described
c. Target market described thoroughly
d. Menu described matches the theme/ concept of commercial / non-commercial operation.
e. Professional business attire for presentation

Name: _____

Teacher: _____

Advanced Culinary Restaurant Project Due Dates

Project Part	Specific Project Part	Due Date	Instructor(s) Comments/Initials/Date
Written Paper	Outline for Written Paper		
	First Draft of Written Paper (submit electronically)		
	Final Draft of Written Paper (submit electronically)		
Recipes and Cover Sheets	Cover Sheets and recipes for 5 standard recipes including recipe sources (submit electronically)		
Costing Outs and Ratios For each hand in cover sheet, recipe, yellow costing out sheet, blue ratio sheet (submit electronically).	Recipe # 1		
	Recipe # 2		
	Recipe # 3		
	Recipe # 4		
	Recipe # 5		
Menu	First Draft of Menu		
	Final Draft of Menu		

Final Project – final copy of the entire project	Final Project – final copy of the entire project is due. (Attach all drafts with your project and all final edits)		
Project Oral Presentation	Present Restaurant project with props and PowerPoint		

Teacher(s): Caswell & Yearwood (Culinary Arts Instructor)
Grade: 12th Grade
Unit: Restaurant Project
Part I: Paper

Standards:

Literacy 6-12 Anchor Standards for Writing

- Standard 2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- Standard 3: Write narratives to understand an event or topic, using effective techniques, well-chosen details, and well-structured sequences.
- Standard 5: Conduct short as well as more sustained research based on focused questions to demonstrate understanding of the subject under investigation.

Reading Standards for Literacy in Science and Technical Subjects 11-12

- RST7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 11-12

- WHST2: Write explanatory and analytical text focused on discipline-specific content and which uses strategies for conveying information like those used in the respective discipline.
    - WHST2a: Introduce a topic and organize complex ideas, concepts, and information so that the progression creates a unified whole.
    - WHST2b: Analyze a topic thoroughly by selecting the most significant and relevant facts, data, extended definitions, concrete details, citations, or other information and examples appropriate to the audience's knowledge of the topic.
    - WHST2c: Use appropriate and varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
    - WHST2d: Use precise language, content-specific vocabulary, and discipline-specific writing practices to reflect the complexity of the topic and to convey a style appropriate to the discipline, context, and audience.
    - WHST2e: Establish, develop, and maintain a formal style and appropriate tone while attending to the norms and conventions of the academic discipline, purpose, and audience for which they are writing.

Purpose:

The overall purpose of this lesson is to guide students through the writing process as they complete their paper requirement for their senior project. The paper portion of

this project allows students to put their thoughts and ideas down on paper for their restaurant. They are asked to talk about the type of ownership, location of their restaurant, service style, atmosphere, personnel and production needs, and competition in their area. This serves as a business proposal that will show or explain to potential investors that they have a solid idea and have done their research.

Objectives:

Students will be able to…

- Create and design a restaurant idea
- Author a well-written and cohesive paper that is organized and follow grammar and spelling conventions
- Identify what will draw customers in from their restaurant and the demographics of their chosen location
- Discuss the needs that will make their restaurant successful
- Describe the atmosphere and décor of their restaurant

Materials:

- 1:1 device
- Internet access
- Project Outline Packet (digital & printed access)
- SMART Board/TV
- Outline Worksheet (digital & printed access)
- Previous Student Exemplars (digital access)
- Word Processing Software
- Grading Rubric (digital & printed access)

Lesson:

Week 1: Introduction (1 hour)

- In a previous class, instructors and students reviewed the entire project packet (attached above). Today, we will be going into further detail about the paper that they will be writing.
- Direct students to pages 1-3 of the project packet. Here they will find the breakdown of what is to be included in the paper, along with some guiding questions.
- Instructors will go over item by item and ask questions.
  Example Questions:
  - "What is an example of a franchise?"
  - "Think about where you want your restaurant to be located, be specific."
  - "What is the competition in your area?"
  - "What sets apart your restaurant apart from the competition?"
  - "What will your restaurant look like?" "Be descriptive."
  - "How many people are you going to need to hire?"

    - "What equipment will you need to make the items that will be on your menu?"
- Students will be then directed to open up Google Classroom to find the assignment with the fillable outline. (Paper copies are available upon request).
- Go over the fillable outline. Make sure students understand the concept and encourage them to ask questions.
- Students will have the rest of the time to begin working on their outline.
- Instructors will be available to answer questions, provide support, bounce ideas back and forth, computer assistance, etc.

Week 2: Workshops

- Review outline briefly and check progress
- Students will have the time to continue working on their outline
- Students that submitted outlines prior to day 2 or 3 have received feedback on their outlines. Instructors asked questions and corrected any spelling or grammar errors.
- Instructors will be available around the classroom to keep students on task, assist with any questions or ideas, and other issues as they arise.

Week 3 & 4: Rough Drafts

- Students are expected to begin their rough drafts of their paper.
- Outlines have all received feedback at this point.
- Review the requirements of the paper – ask students what points they are to include.
- Students will have the rest of the session to work on their rough draft.
- Instructors will be available for assistance, feedback, or asking/answering questions.
- Rough drafts are due after the end of the week 5 session

Week 5 & 6: Final Drafts

- Feedback has been provided to all students on rough drafts.
- Students are expected to correct any issues, answer instructor questions, or add other necessary information not included in their first draft.
- Students will have two (2) full sessions to work on their paper with instructors available to assist and guide them.
- Final Drafts are due by the end of the week 7 session.

Assessment:

Students will have progress checks (formative assessment) after each assignment (outline and rough draft). This keeps students on track with the entire class and hopefully prevents any falling behind or procrastination. Feedback will also be provided on each of the assignments. The summative assessment for this part will be the final draft of the paper.

Name:
Senior Project - Outline for Paper

Directions: Using the guiding questions provided here & in your project outline - fill in the outline provided to help organize your thoughts for your paper. The more information you have the better!

1. Type of Ownership - Is your restaurant going to be privately owned? Will you have a partner? Or is it part of a franchise (McDonald's, Subway, etc)?

2. Location - Where is your restaurant going to be located? Give specifics! **Example: Don't just say NYC, state where in NYC you will be located.**

3. Concept/Theme & Type of Operation - What is your concept or them? Is it fine dining? Casual? Family friendly? Fast-food? Does your restaurant have a specific theme?

4. Target Market - Who are your target guests? Remember to think about demographics (income, age, food preferences, etc.) in your location!

5. Competition Outlook - **Research is required here!** Who are your competitors? What sets you apart from the competition? Why would your customers pick your restaurant?

6. Service Style - What kind of service style will you be using? Quick service? Over the counter? Full service? Sit down? Team approach? French? Russian? Family style?

7. Atmosphere - Describe the decor and ambiance. Color scheme, decoration ideas, what style tables/booths, etc.

8. Personnel/Staffing Needs - What positions will you need to hire for? Managers, cooks, servers, host/hostess, bartenders? How many of each?

9. Production Needs - Tell us what major pieces of equipment you will need for your menu. Ovens, fryers, dishwashers, walk-in freezers/coolers, pizza ovens, etc.

Final Draft Rubric:

	5	4	3	2	1
Type of Ownership & Location	States the name of the restaurant and clearly tells the reader what type of ownership is present. Provides details about duties or rationale for choosing ownership type. Describes location area and why they chose the location they chose.	Type of ownership is briefly discussed. Some details are provided Gives location of restaurant and briefly discusses why the area was chosen.	Sufficiently discusses type of ownership and location.	Superficial discussion about the type of ownership and the location chosen.	No clear ownership type is discussed. Location is very generalized. No explanation as to why they chose ownership or location.
Service Style & Type of Operation	Presents the service style and type of operation thoroughly.	Presents the service style and the type of operation of the restaurant clearly and thoughtfully.	Sufficient discussion of service style and type of operation of the restaurant.	Discussion about service style and type of operation is superficial.	No clear service style presented. No clear type of operation.

Target Market & Competition	Discusses the customer base and the demographics thoroughly. Knowledge of competition is clearly presented. Understands (in writing) what services or costs need to be provided to provide an advantage.	Has a general idea of demographics and target market in restaurant's location. Lists some examples of competition and why their restaurant would draw in local clientele.	Customer base, demographics, and target customers are discussed sufficiently. Knowledge of the competition is sufficient. It is briefly discussed (in writing) the services or costs that are needed to have an advantage.	Superficial discussion or idea about the company's target customers, the demographics in the specified area. Idea of the competition in the local area is superficial. There is little mention of any advantage over competition.	No clear definition of customer base in business' area. No clear presentation of the competition or the competition discussed is not related to their business.
Decor/Atmosphere & Concept/Theme	Provides great imagery of what their restaurant and experience will look like to the reader.	Provides some imagery of what the restaurant and experience will look like.	Sufficiently discusses the concept/theme present in the restaurant and the decor used.	Discussion superficially covers the decor/atmosphere and concept theme in the restaurant.	No clear definition of concept/theme present. No imagery of decor/atmosphere used.
Estimated Personnel & Production Needs	Thorough discussion of personnel and	Briefly discusses personnel and	Sufficiently describes personnel and	Superficially covers the personnel and	No production or personnel needs are discussed.

	production needs. Provides rationale for these needs.	production needs Some rationale provided.	production needs. Very little rationale provided.	production needs.	
Grammar, Spelling, Organization, Length	Demonstrates control of conventions with no errors. Essay transitions and topics flow well and build off one another. Can be easily read and understood. (3 full pages)	Demonstrate control of conventions with infrequent errors. Essay transitions and topics flow well and build off one another. (2.5 pages)	Demonstrates partial control of conventions with occasional errors that do not hinder comprehension. Essay transitions and topics flow well. (2 pages)	Demonstrates emerging control of conventions with some errors that hinder comprehension. Some paragraph transitions but do not flow well. (1.5 pages)	Demonstrates lack of control of conventions with frequent errors that make comprehension difficult. There are no transitions within the essay. The topics do not relate/build off one another. (1 page or less)

Curriculum Justification:

The whole restaurant project is a great way to integrate English into the Culinary Arts CTE program. Although, the project is centered around the Culinary Arts program it is very academic heavy. This project includes practical writing pieces (paper, menu, and PowerPoint) and an oral presentation piece. This project is also a great addition to the student portfolios that are a graduation requirement from the technical center.

Many programs could adapt this project to their field of study. For example, the Computer Programming and Video Game Design program could also adapt this project and create their own repair shops or video game design businesses. The Cosmetology programs already have a very similar project where students create their own salon. The students can choose what services their salon will offer, where it will be located, the supplies and equipment they will order, and what their salon will look like.

As seen in the student work samples provided, the students are very interested in these projects because they get creative control over what their restaurant or salon can be. I've seen projects that have great themes and others that have a sentimental value to the student. It's important that the students like these projects because it keeps them invested and interested. Without the CTE program involvement, students would think of it as another English project rather than a CTE program project.

Power Mechanics:

Unit Summary: Forklift Certification

Unit Author	Chelsea Caswell & J. Erwin
Unit Plan Title	Forklift Certification
Subject Areas	English Language Arts & Power Mechanics
Grade Level	11th
Essential Questions	• How do you properly operate a forklift? • What are the different parts or zones of a forklift? • What do you need to do to receive your forklift license? • What does an unattended forklift mean? • In what position are the forks placed when in park?
Unit Summary	During this unit, students will be studying and learning about forklift operation and safety. Students will complete a forklift program, vocabulary activity, forklift zone identification activity, and test drives on the forklift.
Standards	See individual lessons.
Approximate Time Needed	Three to four (3-4) classes
Procedure	Session 1: Introduction & Forklift Activities Session 2: Forklift Activities Session 3 & 4: Review and Driving Tests
Materials Needed	• Forklift • *Coaching the Lift Truck Operator 2* Response Book & Videos • Quizlet activities • Forklift identification activity/worksheet • 1:1 Devices
Internet Resources	• Internet access for activities
Accommodations	• Smaller group sizes (group activities) • Reading text aloud

	• Hands on practice with the forklift • More than one chance to take exams
Final Assessment	For the final assessment, students will take a written exam and a driving test. By passing both of these exams, students will be awarded their forklift license.

Teacher(s): Caswell & Erwin (Power Mechanics Instructor)
Grade: 11th Grade
Unit: Forklift Certification

Standards:

Literacy 6-12 Anchor Standards for Reading

- STANDARD 7: Integrate and evaluate content presented in diverse media and formats, including across multiple texts.

Literacy 6-12 Anchor Standards for Writing

- STANDARD 7: Draw evidence from literary or informational texts to support analysis, reflection, and research.

Reading Standards for Literacy In Science And Technical Subjects 11-12

- RST2: Determine the key ideas or conclusions of a source; summarize complex concepts, processes, or information presented in a source by paraphrasing in precise and accurate terms.
- RST4: Determine the meaning of symbols, key terms, and other content-specific words and phrases as they are used in scientific or technical sources.
- RST7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

Purpose:

The overall purpose of this lesson is to assist the students through the forklift certification process. The instructor and I will be co-teaching very heavily during this lesson as he is certified to test the students and award licenses. By using these smaller activities, the students have more opportunities to review and reinforce what they have learned.

Objectives:

Students will be able to…

- Operate a forklift safely and properly
- Identify and locate various parts and zones of a forklift
- Define and explain the parts and zones of a forklift and how they work or their purpose
- Examine the forklift to ensure it is in safe and working order

Materials:

- 1:1 Device
- Internet access
- *Coaching the Lift Truck Operator 2* Response Book & Videos
- SMART Board/TV
- Quizlet Activities
- Forklift Identification Worksheet/Activity

Lesson:

Days 1: Introduction & Group Activities

- To begin this lesson, we will introduce what we are going to be focusing on – forklift training.
- Opening questions:
  - "Who has operated a forklift or other heavy machinery before?"
  - "If you have operated machinery before, what have you operated?"
  - "What do you know about forklifts and forklift safety?"
- Students will be split into three (3) different groups that will rotate every thirty (30) minutes.
  - Group 1: Will begin working on the response book with Mrs. Caswell
  - Group 2: Will play the vocabulary Quizlet activity with the TA
  - Group 3: Will be with Mr. Erwin and begin their introduction to the forklift
- **Group 1: Response Book**
  - Students will be shown a series of videos that coincide with the response book.
  - After each video, as a group, we will go over the section that was covered and answer the questions in the response book. Teacher will read-aloud questions and help guide and keep discussions on track.
- **Group 2: Vocabulary Activity**
  - For this activity students will be directed to join the Quizlet live game as an introduction to identifying forklift parts
  - Link: https://quizlet.com/454275192/forklift-identification-flash-cards/
  - After a few rounds of the "live" game, students can review by using the "learn" function on Quizlet as well
- **Group 3: Hands-On Forklift Group**
  - Mr. Erwin will introduce students to the forklift and show them how to operate and inspect the machine.

Day 2: Forklift Activities

- Students will have the opportunity to continue rotating through the groups from the previous class.
- Groups will be the same as described above.

Day 3: Review & Written Exam

- To begin class, we will review for the written exam
- Two new activities will be introduced: Forklift True/False Quizlet and the Forklift Identification Worksheet/Activity
- Quizlet link: https://quizlet.com/335745409/forklift-truefalse-flash-cards/
- Students will then take the written exam.

- Afterwards, if time allows, students will be given time with Mr. Erwin to practice for their practical test.

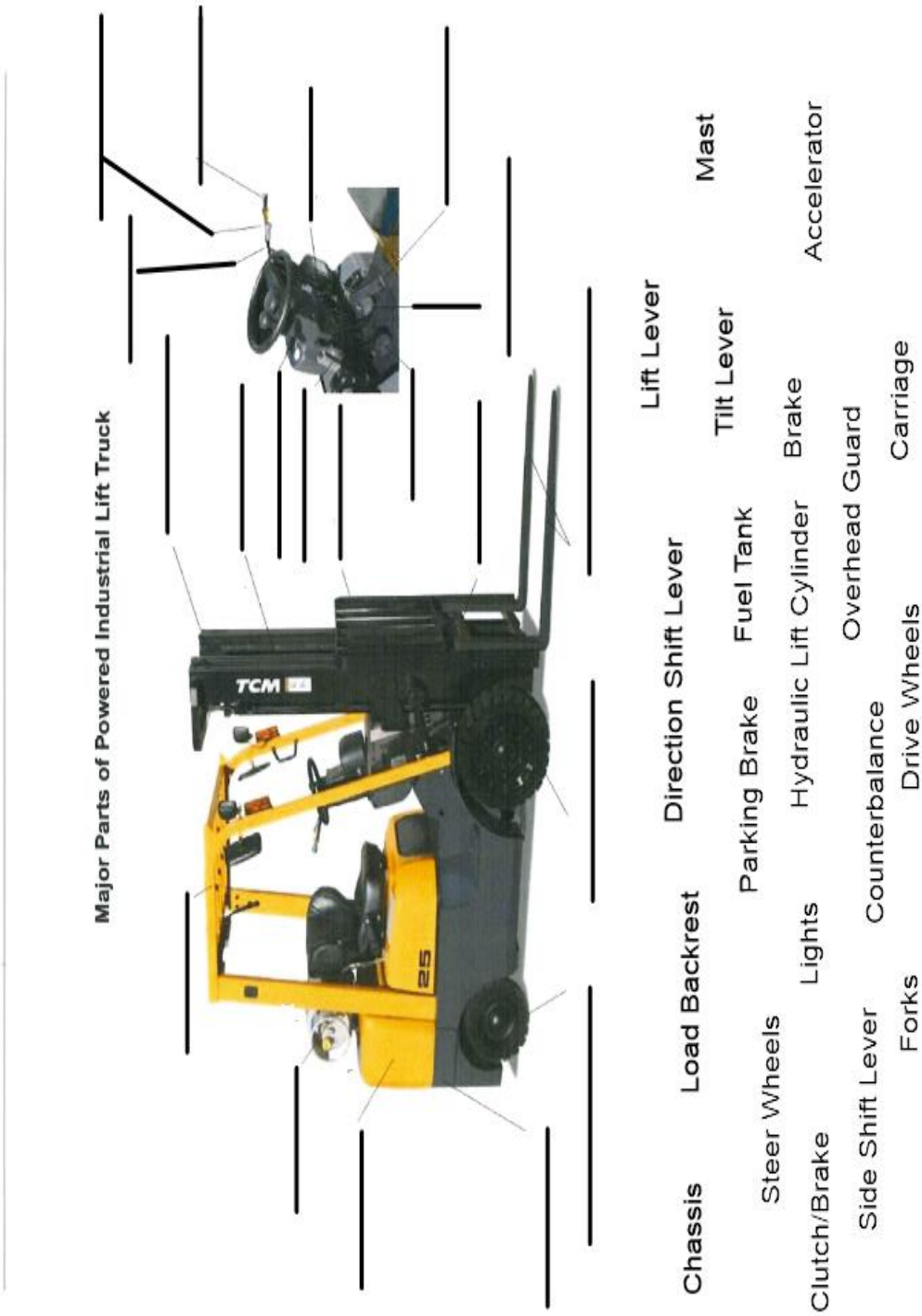
Day 4: Practical Test Day

- Students will be taking the practical exam with Mr. Erwin.
- Students have the chance to observe and provide peer-to-peer feedback

Assessment:

Students will be formatively assessed during the Quizlet activities, forklift identification activity, and discussions had as they filled out the response book. The summative assessment will be the written and practical exams. If the students pass both tests, students will be awarded their forklift license.

Forklift Activity:



Forklift Activity Answer Key:

Curriculum Justification:

As mentioned earlier on, literacy can be presented in a variety of ways. Although this lesson isn't as heavily centered around English, there are a lot of components that require students to understand the material. If the students do not understand the material presented to them, they will not be able to properly or safely operate a forklift. The literacy incorporated in this lesson comes from the vocabulary, identification, and response book.

By breaking the students in to smaller groups, the students will receive more direct instruction from the instructors. This is made possible by using co-teaching methods. The material is presented in a variety of ways as well. There are videos, written responses, games, and hands-on activities. By having the variety of methods, all student learning styles are being met and accommodated to.

Closing Summary:

English in Career and Technical Education looks very different than traditional English classes. I have enjoyed learning about the various programs that I work with and how to integrate English and literacy as I have embarked on this journey. To properly integrate English activities into a program, the activities need to be centered in the program of study. Students will be more engaged with the project or lesson if it is based on something that they are interested in.

The lessons above really exemplify how different English can look in a few different programs. The long-term Culinary Arts project shows that some classes need more involvement with academic teachers in comparison to other classes like Power

Mechanics. However, lessons like the Power Mechanics one shows what technical literacy can look like. The texts and materials used are authentic and are important for students to understand. The use of these texts provides students with more real-world practice for future careers. Many careers require students to read technical literature or manuals for machinery use or maintenance, installation of parts, or even baking or cooking a dish.

It is not only the job of the academic teachers but also the program teachers to prepare students for the workforce or post-secondary schooling. The inclusion of certification programs like forklift certification, OSHA 10, or ServSafe really prepares students to enter the workforce. They also give the students an advantage when they apply for jobs or higher-level programs.

Another main component that makes integration in a program is the cooperation of the program teacher. If the program teacher isn't involved during academic lessons the students aren't going to take it as seriously. The co-teaching aspect helps because they (the program teacher(s)) are the expert of their field. The input of their expertise during lessons can put things into perspective for students. Also, with effective co-teaching, students are able to receive more individual attention from the instructors.

Without effective integration of English in CTE programs, students wouldn't be receiving the full potential of what the various programs have to offer. All the embedded lessons, specialized lessons, and projects allow students to continue building on their skills that they have been working on since they began their

schooling careers. By allowing them to do so they become effective communicators, writers, and are ready to take on what the real-world has to offer them.

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