¿Cómo se dice “Techie” en Español?: An English Language Development Curriculum to Prepare Latinx High School Students to Enter San Francisco’s Tech Workforce

Caitlin E. Martin
University of San Francisco, cemartin5@dons.usfca.edu

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A Field Project Proposal Presented to
The Faculty of the School of Education
International and Multicultural Education Department

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts in Teaching English as a Second Language

By
Caitlin Martin
December 2016
¿Como se dice “Techie” en Español?: An English Language Development Curriculum to Prepare Latinx High School Students to Enter San Francisco’s Tech Workforce

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

TEACHING ENGLISH AS A SECOND LANGUAGE

by

Caitlin Martin

December 2016

UNIVERSITY OF SAN FRANCISCO

Under the guidance and approval of the committee, and approval by all the members, this field project has been accepted in partial fulfillment of the requirements for the degree.

Approved:

__________________________
Instructor/Chairperson

__________________________
Date
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ABSTRACT

In the age of informational technology being, quite literally, at the touch of a button, the demand for adequate talent in Science, Technology, Engineering, and Math (STEM) fields is higher than ever, and those who are qualified to supply work in STEM fields are valued, both monetarily and socially, above other professions. In looking at San Francisco, California, a dynamic, diverse, and cutting edge city, on the pinpoint of what is being called the “tech boom”, one can see that technical careers are highly valued in comparison to alternate professions, technical workers are more significantly valued, and therefore, are paid significantly higher salaries compared to other professions, which follows the basic principle of supply and demand. Unfortunately, these high paying jobs are not accessible to all populations equally, particularly Latinx communities, which has led to inflation, gentrification of traditionally low-income areas, and therefore displacement. The purpose of this project is to create an English Language Development (ELD) curriculum framework to be used by educators, that will teach the soft-skill requirements of the technical job force in San Francisco, combined with targeted English Language Development standards, in order to combat the effects of marginalization, discilusion, and displacement. The significance of this project is that it rather than just acknowledging that there is inequality, it aims to arm students with foundational and critical skills that they can use to overturn inequality, creating generational disruption.
CHAPTER I
INTRODUCTION

Statement of the Problem

During his presidency, Barack Obama campaigned for an increase and revamp of STEM (Science, Technology, Engineering, Mathematics) education throughout the United States, investing nearly one billion dollars into the endeavor (Ransom, 2016), proving that advancement in these fields is a top priority in a globally connected world, which also explains the rise in occupational opportunities within the field of computer science (Khoury, 2007). In a capitalist economy, the theory of supply and demand states that where there is a demand, both monetary and social value is given to what and whom can supply that demand (Ball & Seidman, 2012); in the case of the demand for adequate talent in STEM fields, it would follow that those who are qualified to supply work in STEM fields will be valued, both monetarily and socially, above other professions. A close study of San Francisco, California, which has in the last year moved ahead of Silicon Valley as the tech capital of the world (Maleady, 2015) gives a significant example of the consequential effect of the manifestation of this phenomenon on the landscape of a city’s culture and future.

I moved to San Francisco, California, in August of 2009 to begin my undergraduate degree at San Francisco State University. Then, I paid $500.00 for my own room in the Sunset District, the neighborhood surrounding Ocean Beach, on the outskirts of city proper. Today, seven years later, that same room can be rented for nearly $1,000.00. The rising rent prices are a common lament of San Francisco residents. A quick Google search of “rent increases in San Francisco” proves that the majority of the Bay Area attributes this phenomenon to “techies.” According to Merriam-Webster, a techie is someone who knows a lot about technology; according to the Bay Area, a techie is someone who works for a software company like
Google, Apple, or Twitter, and who can afford rent as high as $3,410.00 a month for a one-bedroom loft, which was the average for the city in 2015 (O’Connor, 2015). Increases in rent, gentrification, and what is now being commonly referred to as the “tech boom” have slated San Francisco to be the most expensive city in the United States (O’Connor, 2015). While there is wealth in many industries in San Francisco, the tech industry is the fastest growing in recent years, and, one of the major factors that has led to the unaffordability that now characterizes the City by the Bay, with computer engineers expected to make upwards of $64,000.00 after graduating with undergraduate degrees (Close, 2016). Because technical careers are highly valued in comparison to alternate professions, technical workers are more significantly valued, and therefore, are paid significantly higher salaries compared to other professions, which follows the basic principle of supply and demand.

Inflation and rises in cost of living caused by the influx of money into the city from the tech industry will eventually make San Francisco unlivable for many of its residents if the city’s highest paying industries are not made accessible to all of its residents (Ferro, 2016). The effect has been that, with the increase of people moving to the city who fall within a high-income bracket, low-income neighborhoods are overtaken and become unaffordable for its current residents. In a study about Urban Displacement in the Bay Area, conducted by UC Berkeley over the past thirty years, it was found that in the nine-county Bay Area region, low income housing areas are at a high risk to be affected by pressures of gentrification and displacement (Chapple & Zuk, 2015), causing many residents, particularly low-income Latinx and Black communities, to move out of their homes. In recent years, this phenomenon has been especially present in San Francisco’s historically Latinx Mission District. With its convenient location, many tech worker transplants are attracted to the area, which has led to
rent increases and development of high cost condominiums, unaffordable to many of it long
time residents (Pogash, 2015). If these populations are not able to enter into the high paying
tech workforce at higher rates than they currently are, becoming able to afford the inflated rent
prices in the city, then displacement will steadily continue.

Statistics show that the tech industry is not fully reflective of San Francisco as a whole.
The 2015 Census Bureau reports that Latinx residents represent 15.7% of San Francisco, while
a recent online report shows that Latinx workers represent only 5% of the tech workforce in
San Francisco (Harkinson, 2014). With Latinx members representing a significant portion of
San Francisco’s population, it should follow that they would represent a parallel portion of one
of its largest and highest paying industries. According to National Science Foundation data, in
2012, Latinx students received 10% of overall Engineering and Computer Science degrees.
Furthermore, another report has shown that top universities produce Latinx Computer Science
and Computer Engineering graduates at twice the rate the leading technology companies hire
them (Guynn & Weise, 2014). So, the question that begs to be asked is, where is the
disconnect happening between the amount of workers who are qualified for technical roles,
versus the amount of applicants who actually secure these roles? Is it that qualified Latinx
candidates simply do not apply for technical roles at the same rate as their White and Asian
counterparts, or that they are not hired at the same rate, and, if that is the case, for what
reasons? A talent sourcer at a recruiting company in San Francisco explained that there are
many factors that a hiring manager looks at when selecting applicants, factors that can be
placed into categories she referred to as “hard skills” and “soft skills.” The former, “hard
skills,” are those skills gained through Computer Science and Engineering degrees, such as
coding and software development. The latter-- “soft-skills”-- as she explains them, are skills
that are not as easily quantified, such as, but not limited to, the ability to interview well, to productively collaborate with coworkers, and the, as she states, ambiguous ability to be a “fit within the company’s corporate culture,” which is aligned to a company’s values and informed by the majority culture within a company (Brar, 2016). It is the combination of these skills that get an applicant the job. The number of Computer Science and Engineering degrees earned by Latinx students in recent years proves that there is adequate opportunity and spaces for these students within the public education system to receive the necessary hard skills requirements to be qualified for a technical role, and where there is not adequate support for these students is in the soft skill areas, such as applying and interviewing for roles, or how to be successful within the company once a role is secured. The need for these supports is necessary in order to get more San Francisco born, English Language Learner (ELL) or Bilingual Latinx workers hired and represented in the tech industry, and subsequently, be able to participate in San Francisco’s technical workforce.

**Purpose of the Project**

The current social and economic climate of San Francisco proves that there is a need to support underrepresented groups towards obtaining employment in high paying industries in order to combat the effects of inflation, gentrification and displacement. Because this project is focused specifically in San Francisco, the purpose of this project is to create an English Language Development (ELD) curriculum framework to be used by educators that will teach the soft-skill requirements of the technical job force in San Francisco.

The curriculum will target specific English Language Development development standards as decided by Common Core State Standards for California is grades 9-12. I have decided to create a curriculum for high school students because it is my belief that high school
students would benefit most from instruction in college and career readiness, as college and careers are in their immediate future. The purpose for a curriculum that can be used in an ELD classroom is to address the needs of the Latinx, English as a Second Language population in San Francisco, though there are other student populations who fall under the category of English Language Learners who can benefit from the goals of the coursework. Furthermore, such a curriculum could be adapted to an English-only class to reach multiple non-ELL student populations who would benefit from education surrounding technical job placement in San Francisco. I have chosen to focus on Latinx students specifically because, while there are several groups that are underrepresented in the tech industry, such as Black and Female workers, Latinx residents are represented more disproportionately between the overall population of San Francisco compared to tech industry employees than these other groups.

The scope and sequence of the curriculum will comprise of one, three-week unit. Each week within the unit will build chronologically and will address a different aspect of securing and maintaining a job in this particular field. The first week will serve as foundational and will inform students about the culture of the tech workforce and the different job areas within the industry, as well as make them aware of the underrepresentation of certain groups, and the factors that contribute to these statistics. Week Two will cover all aspects of finding, applying, and interviewing for jobs. Career education at an early age makes classes more relevant to the real world, and, in a language learning context, makes language development and acquisition more meaningful (Heilbronner, 2011). The final week will ask students to hypothetically be tasked with managing their own project. They will design a conceptual idea for a mobile or web app to be used by high school students in the Bay Area, assessing the cost, functionality, usability, and audience of the product. The purpose in ending the semester this
way, besides it serving as a summative assessment, is that it is in line with the principles of an effective Project Based Learning or Task Based Learning framework, which asks that projects are authentic, require applied learning, and have adult connections (Lattimer & Ridorian, 2011).

It is important to note that the purpose of this project is not to proselytize a certain career path over others; the focus is on the tech industry, as it is relevant to San Francisco, and the industry is slated to only grow and need more workers in future years. The skills learned in this curriculum will allow students to think critically about factors that contribute to the economic and social landscape of a place, understand their opportunities (or lack thereof) within a place, analyze necessary skills and requirements for obtaining and maintaining employment, and apply that knowledge to creating a functional project, while also serving the double role of advancing their English Language Development. It is my belief that the skills gained through this curriculum could be applied in many aspects of a student’s life, and throughout any path they choose to take.

**Theoretical Framework**

This project is informed by theories across disciplines, as it aims to not only address Second Language Acquisition, but to also provide students with opportunities to navigate real world scenarios and to address discourse surrounding systemic factors that lead to wealth inequality and achievement gaps between groups. The theoretical framework of this project is based in the following two theories: Project Based Language Learning and Critical Hope.

**Project Based Language Learning**

When faced with arming students with the tools to succeed not only in classrooms or on tests, but in the world that lies outside of the school hallways, the need for a curriculum that
is based in critically thinking and real world scenarios is crucial. Project-Based-Learning approaches education with emphasis on communication, interdisciplinary, critical thinking and 21st Century skills. Cultivating these skills alongside English Language Development will position these students to be prepared for the job market they will be entering post graduation. As Lattimer & Ridorian (2011) detail, there are several key principles that must be apparent in a Project-Based Learning framework for it to be effective in approaching education through a critical lens: academic rigor, authenticity, applied learning, active exploration, and adult connections. The combination of these elements makes for higher student engagement, as well as greater effectiveness in not only teaching academic skills, but pushing students to develop adaptable minds that are prepared for the challenging world they will find themselves in (Lattimer & Ridorian, 2011).

**Critical Hope Theory**

The question of how to educate students in the context of systemic oppression in order to alleviate the achievement gap between students of color and their privileged counterparts is a common topic amongst educators. Jeffrey Duncan-Andrade frames this conversation around hope. He describes the enemies of hope that plague urban schools with high populations of Black and Latinx students, which are Hokey Hope, Mythical Hope, and Hope Deferred. He names these as false hopes because engaging in one of these hopes, regardless of their intention of being a solution, actually perpetuate issues of inequity. The false hopes will be defined briefly here:

**Hokey Hope:** This form of false hope manifests as the educator, in an attempt to instill optimism in their students, ignores the factors that are working against their student’s ability to be successful within an oppressive system. This hope perpetuates the narrative of “pull-
yourself-up-by-your-bootstraps”, and in doing so, inaccurately depicts the ability to be successful as simply working hard and subsequently “projects some kind of multicultural, middle-class opportunity structure that is inaccessible to the overwhelming majority of working-class, urban youth of color” (pg. 3).

**Mythical Hope:** This form of false hope describes the propensity of urban educators to project the experience and success of one member of a group onto the entire group. An example of this would be an educator overstating the significance of the election of Barack Obama as the first Black president as an indicator that there is no longer racism in America, inaccurately naming the success of one as the rule, when it is in fact the exception.

**Hope Deferred:** This hope operates through educators who do not aim to blame the students for why there is an achievement gap, but, instead, emphasize blaming history, society and systemic forces that work against them. While progressive in its goal to not place blame on the students themselves, this deferred hope does not offer students with solutions as how to go about combatting the forces that are working against them, and therefore does nothing to alleviate the problem.

Duncan-Andrade offers the antithesis to these false hopes as Critical Hope, in which educators can engage in a pedagogy of actively struggling against inequity through intentionally teaching tools to students so that they can challenge said inequity. Critical Hope is three part: Material Hope, Socratic Hope, and Audacious Hope. The three parts of Critical Hope will be briefly defined here.

**Material Hope:** This form of Critical Hope operates under the notion that the most important material a teacher has is in fact their role as a teacher. Teaching with Material Hope means that academic rigor and relevance to student’s lives are not mutually exclusive, and in
fact, one must exist with other. It asks educators to teach essential academic skills through the context of the lives of the students they are working with.

**Socratic Hope:** This hope requires that both teachers and students critically analyze their context, their environment, the forces that work for and against, and especially, their pain, in order to establish how to work towards justice and equity. It operates under the notion that all parties in an educational space must understand the system they are in, and their role within it, before they can ever change it or improve it.

**Audacious Hope:** This hope delegitimizes traditional western notions of the individual, a social construct that says that individuals are disconnected from society as a whole, and instead each person is isolated in and responsible for their own successes and victories. Audacious Hope challenges this idea by asserting that educators need to stand in solidarity with their underserved students, and that their is collective responsibility for failure, and collective celebration of triumph.

This project is informed by and based in a critically approached curriculum design that looks to make students aware of historical and systemic forces that work in opposition to their success, and turn that awareness into functional tools to face those obstacles productively and engages in an intentional dismantling of those systems through tangible and actionable teaching of strategies and tools that students can use both in and out of the classroom (Duncan-Andrade, 2009).

This sort of pedagogy seeks to look at education as both academically rigorous and personally transformative; in this case, a curriculum in which students are made aware of systems of oppression and are given both the academic and personal tools to overcome it by aligning English Language Development standards with project-based learning that has the
explicit intention of arming students with the necessary qualifications to effectively enter the workforce after graduation. In focusing on the soft skills, skills that are inherently tied to the privileged and hegemonic cultural bias of the majority White and Asian tech workforce, this curriculum looks to not only inform students about the realities and challenges of the workforce they will be entering, but also gives them the necessary skills to actively operate and be successful within it, with the overarching goal of creating generational change in San Francisco’s workforce.

**Significance of the Project**

The significance of this project is that it is informed by the systemic and historical oppression that work against certain populations, but is not stunted by them. Rather than just acknowledging that there is inequality, it aims to arm students with foundational and critical skills that they can use to overturn inequality. Throughout the Bay Area, and the nation as a whole, there are a large number of programs aimed at teaching hard technical skills to traditionally marginalized groups (Jackson, 2016). One such institution, CodeWalker Academy, based in San Francisco and whose aim is to provide courses on Coding and Software Development for Black, Latinx, female, former inmate, and single parent students, is just one of many institutions that have joined the conversation on how to diversify the tech industry. The founders, Mike Stanton and Zeke Swepson (2016) have commented on the fact that it is not enough to just teach hard skills; there must also be education around the factors that bar certain groups from tech industry jobs, and educators must look critically at how not only to communicate these factors to students, but also create curriculums that tangibly teach students how to succeed in the face of such obstacles.
This project looks to target students when they are at an age in which they begin to consciously think about their future, as contributing members to the workforce. By grounding the personal education of forming one’s identity as a future worker in their current academic structure, particularly language, the curriculum will engage students by not only addressing their immediate goals as high school students, like getting high grades, improving their English, and getting into college, but also prep them for the creation of future goals that will inform their identity in adulthood.

**Limitations of the Project**

There are several limitations to this Field Project. Firstly, the audience is very specific. The intended audience is for high school English Language Development educators, who work with high Latinx populations, in San Francisco. The content of the coursework focuses heavily on phenomenon that is relevant to San Francisco, and requires foundational knowledge of the city that would come from the audience being residents of the city. Moreover, it is thematically focused in language development through job-related skills, and particularly skills for the tech industry in San Francisco Bay Area. Finally, the coursework is designed for Intermediate to Advanced English Language Learners, particularly those who have achieved conversational English proficiency, and who need support in the fine-tuning their academic language skills.

**Definition of Terms**

**Coding**: job skill in which a person creates a set of instructions for a computer (Merriam-Webster)

**Gentrification**: the influx of capital and higher-income, higher-educated residents into working-class neighborhoods (Chapple & Zuk, 2015)

**Hard skills**: basic skills necessary to be qualified for a job; technical skills; skills that are objective across an industry or role (Cernusca, Gomoi, Almasi, Matica, 2016)
**Project/Task-based learning**: an approach to teaching in which students respond to real-world questions or challenges through an extended inquiry process (Lattimer & Ridorian, 2011)

**STEM**: Acronym for the fields of Science, Technology, Engineering and Mathematics

**Soft skills**: job skills that are subjective to a certain company culture; skills that are not easily quantifiable, like communication, collaboration, or creativity (Cernusca, Gomoi, Almasi, Matica, 2016)

**Techie**: a person who is expert in or enthusiastic about technology, especially computing (Merriam-Webster)
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

In a capitalist economy, distribution of wealth is an indicator of what and who a society values. The Gini Coefficient, created by Italian economist Corrado Gini, is a measurement of wealth that gauges the shared wealth of a particular place. If everyone in the place of study shares wealth equally, that place gets a score of zero, while oppositely, if one person has all of the wealth, the place gets a score of one (Black, Hashimzadem & Myles, 2009). In 2012, figures garnered from the American Community Survey and assessed by the Human Services Agency calculated San Francisco with a Gini Coefficient score of .523. To put this score into perspective, in the same year, the United States received an overall Gini score of .45 (Knight, 2014). While factors such as varying average wealth in nations and value of currency must be considered and normed, these statistics show that San Francisco has far crossed the threshold into being more unequal in its distribution of wealth than equal. To be able to merely meet one’s basic needs of food and shelter in San Francisco, a family of three must have a household income of $57,658.00 (Knight, 2014), while the average entry-level technical employee makes between $65,000.00 and $116,000.00 per year (Ferro, 2016). The fact that technical workers, particularly engineers and developers, are paid at a far higher rate than other industries proves that technical work is valued in San Francisco. If the majority of tech workers are White and Asian, (Harkinson, 2014), then it follows that White and Asian workers have garnered the skills that are of value for high paying employment more than workers of color; a phenomenon that is mirrored almost identically in a public education system that privileges the former and not the latter.
These statistics prove a need for education of Latinx students in San Francisco about the realities of the Science, Technology, Engineering, Mathematics (STEM) and technical focused job market they will enter if they choose to remain in San Francisco. The strategic pedagogical approach of job-market replicated Project Based Learning (PBL) infused with targeted language skills taken from the California Common Core State Standards for grades 9-12 fosters both academic language advancement, but also creates students who have the tools to transform inequities and forces working against them.

This literature review will explore four thematic sections relevant to creating a socially relevant and standards aligned curriculum for San Francisco high school level English Language Development (ELD) classrooms. The first section highlights the significance of motivation, authenticity of language, and ownership as crucial for success in second language acquisition. The second section details the requirements for an effective PBL curriculum, outlining several principles that should be present in a PBL model to maximize student learning. The third section explores the benefits of teaching language through a STEM content specific focus for ELL in a Common Core assessed school. The final section will offer the theoretical lens of teaching as a critical task, detailing the benefits and limitations of pedagogies which foster curriculums that are both academically rigorous and personally transformative.

**Investment, Ownership and Authenticity in Second Language Acquisition**

According to the United States Department of Education, “half of [U.S.] states graduated less than 60 percent of students with limited English proficiency in 2010-2011” (Romo, 2013). California, which is home to more English Language Learner (ELL) students than anywhere in the country, ranks in the 60th percentile of ELL graduation rates, which
means that approximately 600,000 ELL students will fail to graduate high school just in California alone (Romo, 2013). The need to proactively address the social, emotional, historical, and personal factors that contribute to successfully acquiring English proficiency for this population, as well as academic and personal success, is of pivotal importance. Educators in the field of Teaching English to Speakers of Other Languages (TESOL), as well as district officials and educational policy makers are in a unique position to facilitate vital changes and improvements to the way we approach second language education in America.

According to a study done by Ellen G. Batt (2008), when researching the factors that contribute to ELL academic achievement, she found that the evidence proved that there is a clear achievement gap when comparing English Language Learners and native English speakers. To take the problem at only face value, concluding that it is a matter of raw linguistic ability would offer a simplistic, deterministic justification for the challenges faced by ELL students. However, many scholars have decided to look deeper, positing that perhaps the reasons behind the difficulties for ELL students lie in the social, emotional, historical, and personal realms. To counter such a school of thought would be to admit that success in a language is deeply interconnected with relationship of learners to the target language, a relationship that could be defined as investment, or, the student’s motivation to learn the language (Norton, 1997). Their feeling of ownership over the language produces students who live comfortably in the hyphen between being both their native culture and the culture of the language they are learning (Fránquiz & Salazar, 2004), rather than equally on the outskirts of both, causing both their sense of competence and desire to communicate to increase. In other words, it could be understood that the success of ELL students in the United States can be correlated directly with their feeling of ownership of the language-- that English does not only
belong to other people, but also to them—which in turn enables their investment in learning it. The student’s level of investment in the targeted language determines their desire to learn and practice it (Norton, 1997).

Experts in Second Language Acquisition (SLA) have found that sense of ownership, and the subsequent investment in a language, stems from a student’s feeling that acquiring the language will be useful to them. Without a belief that learning English will be of benefit to them, the language acquisition process becomes much more difficult than if a student is invested in the learning (Batt, 2008).

A conversation about identity, language, ownership and investment must include discourse about why English language learning students often feel that they do not own the English language. Often, in language classes, the culture, history and identity that are connected to it, becomes overshadowed by the English language hegemony. American ELL educational paradigms, consciously or not, proselytize pro-western narratives and a Eurocentric English language dominance (Gulliver, 727) to our immigrant student populations, and subsequently, fail to include the alternate voices and identities that an ELL student could invest in and identify with. As Nero (2005) summarizes, that "language should be examined and discussed in its totality--its forms, functions, diversity, links to identity, and culture, power, as well as language attitudes" (pg. 197), highlighting the dynamic and fluid processes of identity construction and its link to language. The intricate building blocks that form a self cannot be isolated or compartmentalized, but rather function in a symbiotic way, needing one to feed the other. Furthermore, it is this intricate relationship that determines the potential of a student for academic success. If students are made to feel as they are being taught *at*, told what to learn, and how to learn it, they will not feel invested in learning the language.
This project is informed by the belief that to learn a language, a student must feel ownership over the language. Once they feel ownership, they will feel invested in learning it. To feel ownership and investment, they must feel it is useful, and that in learning it, they will become both personally and academically successful. Therefore, the choice to teach targeted ELD standards through a Project Based Learning model that teaches explicit skills that are not only relevant to their academic success, such as performance on state mandated tests and their achievement towards high school graduation, but also addresses skills that will enable them to obtain employment, and therefore, be able to stay in their hometown of San Francisco, will ideally provide ample evidence of the benefits of mastering English. The goal of this program is not to proselytize dominant cultures, or influence students to choose one career path over the other; rather, it is to prepare students to be adaptable, to arm them with the necessary academic content skills to be successful in college and career, and in doing so, foster a sense of ownership of English for the students.

**Effective Project Based Learning Models**

Language learning is both an academic pursuit and a personal endeavor. The sense of ownership that is important to the process comes in the form of feeling an identity with the language, as detailed in the previous section, and also from feeling a sense of competency in the language that allows the student to engage with usage in a meaningful way. This means teaching language through themes that are relevant, scenarios that are based in real life events, and vocabulary that is found in authentic conversations. British comedian Eddie Izzard, in his 1999 show, “Dressed to Kill,” recounts his experience learning of French in school through contexts that were not relevant to real life experiences. He comically recalls learning verbs and prepositions with phrases like “le singe est sur la branche” (the monkey is in the tree), noting
that, when he actually got to France, such a phrase was difficult to fit into a conversation (Izzard, 1999). Therefore, basing language learning in contexts that relevant to the student’s lives, ambitions, identities, and histories is of vital importance. Teaching language through random units, themes, or as isolated skills without context, will not be as beneficial as teaching language through contexts that are relevant to promoting student success, in school and beyond.

Project Based Learning (PBL) is a pedagogical approach that teaches concepts through exploration and has its emphasis in real world connections and applications (Lattimer & Ridorian, 2011). The benefit of using a PBL model is that engaging learners in task work provides a better context for the activation of learning processes (Richards & Rodgers, 2004). The model is characterized by a focus on inquiry, exploration, and application, which all build into a connection between school and the real world (Owens, 2013). To be able to identify those connections, and then teach students how to manifest tangible results from those connections in an intentional way is the task of a teacher who wants to engage their students in a PBL approach to learning (Owens, 2013), and furthermore, the connections that are being made must be explicitly explained to the students, making them more meaningful.

According to Adria Steinberg (1997), effective Project Based Learning models contain six key components of design that educators must include: academic rigor, authenticity, applied learning, active exploration, adult connections, and assessment practices, all of which will be briefly explained here:

-Academic rigor asks that educators pair projects with fundamental academic learning content and standards in the four main content areas: Math, Language, Social Studies and Science.
- Authenticity asks that educators create projects that matter to their students and engage them in tasks that are relevant to real world scenarios. Applied Learning asks that educators to create projects that ask students to perform high level competencies that are found in real world scenarios, such as collaboration and communication.

- Active exploration asks that educators should attempt to extend the project beyond the walls of the classroom and into the world outside where it has very real implications. Adult connections ask the educators, if possible, bring in adults who work in the field that the students are studying to act as mentors or guides during the project.

- Assessment practices ask that the educator that they base their standards for assessing projects on real life performance standards, and the assessments replicate assessments that are found in the workplace, like presentations or proposals.

Including these six components into a PBL model ensures that students are receiving a well-rounded exposure to the project model, as well as ensuring that student is fully involved in the process. In the context of language learning, projects that followed the components of Steinberg’s effective PBL model would use relevant real world projects to teach targeted English language skills. Students would be ask to collaborate and communicate with one another using the targeted language in order to complete the tasks. The focus on Project Based Learning is very much on the student feeling successful, and using tools that are contributing to a student’s sense of competency by utilizing their prior knowledge and interests (Rozati, 2014). As mentioned in the previous section, investment is incredibly important for the language learning process; without motivation to learn a language, the investment in the language, and a student’s sense of ownership over the new language, is compromised. Project
Based Learning offers a remedy to lack of student engagement, which can in turn, increase motivation, and therefore, investment and ownership.

In a study of a 10th grade classroom in Columbia, researchers observed an English class where instruction was focused on form-based approaches (Campo, 2016). Form based, oppositely to task or project based approaches, strongly emphasize grammar and syntax in language over context and usability (Campo, 2016). In the classroom observed, it was found that an induction of task-based learning improved the student’s competencies in communicating in English for a variety of reasons. Firstly, in a task based activity, more so than in a form based activity, there is lowered anxiety for students. Because the learning feels more comfortable in the context of a group, or even, individual project, the study found that students were more likely to speak freely, and therefore, despite errors in speaking, were producing longer and more detailed sentences, due to the fact that they were more involved in the process of communicating than in the process of trying to say the correct vocabulary word or verb (Campo, 2016). While of course the goal of any language program should be to improve competence and accuracy of language, the goals of project or task based learning is more on meaning than form (Zorati, 2014), the idea being that an educator should focus on getting students engaged and talking, and then correcting mistakes (Campo, 2016). A good task inspires as much language as possible, connecting first what the students already known, and connecting that to an engaging task to either improve upon those skills or teach new concepts through opportunities for experience (Willis, 1996; Willis & Willis, 2007).

Tasks that are particularly effective are tasks that require inquiry, modeling, visualizing, storytelling, multimedia presentation, and reflection (Owen, 2013). Because PBL is focused on not only teaching content based and standard aligned academic skills, but also on
skills that are not easily quantifiable, but very present in real world environments, like inquiry and reflection, the tasks must require that educators explicitly teach those skills, and students explicitly practice them, for the project to be successful. Furthermore, at the very basis of a Project Based Learning model is teaching students to engage in a self regulating process, that inspires not only responsibility over completely the task, but in their learning in general (Rozati, 2014).

The purpose of this project is to teach targeted English Language Development Standards as outlined by the Common Core State Standards for California. I have chosen a Project Based Learning model because it an approach that can combine academic rigor and real life application that fosters a sense of ownership over learning in the students, and ideally, an ownership over themselves as competent speakers of English.

**The Significance of STEM as Language Focus**

Computer professions are anticipated to include 785,700 novel occupations from 2008 to 2018 (Lacey & Wright, 2009). Furthermore, technology is becoming increasingly important in a globally connected world, which also explains the rise in occupation opportunities within the field of computer science (Khoury, 2007). Even though research indicates the need to prepare English language learners (ELLs), minorities, and females for careers in science (Grossman & Porche, 2014), and the significance of the public education system in churning out qualified students to enter the tech workforce. The focus on technology comes from an overarching focus on STEM throughout the United States as mandated by Barack Obama’s educational revamp during his time in office (Ransom, 2016). The STEM focus is aligned to the goals of Common Core State Standards, which California adopted throughout its public schools on August 2nd, 2010 (Orange County Department of Education, 2011). Common Core
is characterized by emphasizing language use across disciplines as well as 21st Century skills (California Common Core Standards, 2010). For example, in Math, students are often asked to explain the process of completing a problem and explaining their thinking. Furthermore, there is a strong emphasis on vocabulary and the correct use of content-specific vocabulary. Out of the thirty-four total Language standards, there are four that are specific to vocabulary alone (Fisher & Frey, 2014). One standard asks that students “acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level” (Common Core State Standards, 2010). The push for language use to subjects like Math and Science asks that students not only be able to solve a problem, but also explain it. This provides an opportunity for both content-area and language development teachers to build on each other. Educators must design tasks that support both content and language development, and create a more intentional and meaningful learning experience for students. For English language learners, this means that educators need to make a more communicative classroom that supports both content and language development (Cheuk, 2016).

For English Language Learners, the shift towards a focus on language across content areas presents another challenge for students who struggle with language, particularly in areas with domain-specific vocabulary that does not necessarily have a easily transferable cognate in their home language (Fisher & Frey, 2014). Moreover, the Framework for Next Generation Science Standards (2012), along with the Common Core State Standards requires students to master practices such as asking questions, explaining thinking, and searching from evidence, which require well-developed academic language. ELLs comprise a high population of student populations in the United States, and specifically California. The 2009 National Assessment of
Educational Progress scores indicate that eighth-grade ELLs who could be assessed had scores that were considerably lower than their English proficient classmates in both reading and science (August & Francis & Haynes & Martin & Moore & Powell, 2014). Being able to communicate across disciplines is “crucial,” hiring manager Zina Brar, who works in technical recruiting in San Francisco (2016). In an in person conversation, she explained to me the phenomenon wherein the most talented engineers, programmers and developers are unable to communicate the work they are doing the other members of the company, for instance, the marketing team or the customer service team, whose jobs are more client facing. She explained that companies will often have to hire a middle person who both has an in-depth understanding of the technical side of the work being done, and, who can also effectively communicate the goals of the work, the development of the work, and field questions from both the team and the clients. A person who can do both, she says, is an extreme asset to a company. Hiring managers would strongly prefer to hire a programmer, engineer, or developer who can clearly and effectively communicate and has a strong grasp of language (Brar, 2016). By focusing language development in a content specific area, students will learn how to talk about specific topics effectively, a skill necessary both in school and later, in careers.

**Critical Teaching**

In a personal interview with Carl Carpenter (2016), elementary Technology teacher in San Francisco’s Excelsior district, a largely Latinx community where the majority of students speak Spanish at home and English at school, he stated that he, in the past two years, has introduced a unit into his Technology curriculum explaining the need for qualified tech workers in the next twenty years. He frames this conversation around the current statistics that position Latinx, Black and female workers are vastly underrepresented in the field, and using
that as a tool for motivating students. He says that he, along with the hard skills, like coding, typing and website creation, he also has students write reflections and participate in group discussions about the factors that have barred certain groups from gaining employment in technical jobs, as well as the specific tools and strategies students can use to combat and overturn those statistics. According to him, it is the combination of teaching both objective academic skills, alongside a critical and personally transformative pedagogy, has shown desired results in advancing students overall competency in both technology skills, as well as fostered a confidence in the students.

This example embodies the idea of teaching as a critical act. Teaching critically means to stand alongside students in solidarity (Duncan-Andrade, 2009), and to not think of education as just the teaching of academic skills, but also the teaching of skills and strategies to disrupt systems that produce inequity, one of those skills and strategies is the ability to navigate, or navigational capital (Rosso, 2004). One component that social justice educators believe to be important for teaching in a critical way is to look deeply at student’s perceptions of themselves, as well as the perceptions others have of them, explicitly naming those perceptions, and then engaging in discourses that both dissect and disrupt harmful perceptions that lead to inequity. A conversation about the stereotypes, the assumptions, the expectations, the access, the denial, and the reality of the labels that are placed on a student’s identity is necessary to have before the teacher goes into teaching academic or content knowledge. When students are supported to learn more about the social, historical and political context in which they find themselves, they are better able to identify, deconstruct and not internalize harmful stereotypes (Picower, 2012).
One urgent conversation that should be had with English Language Learners and students of color who are engaging in a STEM focused curriculum is a conversation about stereotype threat. Stereotype threat is a phenomenon in which a person, upon internalizing stereotypes about their group, in this case, stereotypes that speak to their intellectual ability, will actually perform academically in a way that validates the stereotype (Aronson, 2004). For ELL students, students of color, and women, this is especially pervasive in STEM fields, because there is long standing stereotypical bias that claims that these student populations are low achieving in these areas (Aronson, 2004). To disrupt the cycle in which Latinx students, along with students of color and female students, believe that they are not capable of achieving highly in STEM fields, and, so, they do not achieve highly in STEM fields, the educator must specifically tell the students that these stereotypes exist, the effect that these stereotypes have on their performance, and then task the students with intentionally working in antithesis of those perceptions. To look at the example of San Francisco based elementary Technology teacher Carl Carpenter, he makes a point to notify students of the glaring opposition to their success that they are up against, states the reasons for these oppositions, and, in doing so, can empower his students to overturn them (Carpenter, 2016). The results were that students were motivated by something besides getting a good grade, but also to achieve something very valuable for their identity and sense of worth.

A pillar of critical teaching is the emphasis on pushing education farther than just gaining content knowledge, and into the realm of the social, political, and historical contexts in which it is taking place (Duncan-Andrade, 2009). When teaching with a social justice focus, that is a focus on teaching students how to create change where they see it is needed, there is an escalation process to achieve such a goal. Social justice educator, Bree Picower, developed
a framework for implementing a critical teaching pedagogy entitled, “Using their Words: Six Elements of Social Justice Curriculum Design for Elementary Classrooms” (2012). The six elements operate in escalation, and build off of one another. Educators cannot isolate the elements either, picking a choosing, because it a comprehensive framework. The six elements will be briefly detailed here, with relevant examples pertaining to the project.

1. Self Love and Knowledge: In this step, teachers provide opportunities for students to learn about themselves and where they come from. In the project, students will write a profile of themselves as a San Francisco resident, describing the city through their own eyes and experiences.

2. Respect for Others: In this step, teachers provide opportunities for students to share about themselves with other students, to create a sense of community. In the project, students will present in small groups the profile they created of the city to find solidarity and empathy in experiences, to acknowledge and celebrate diversity.

3. Issues of Social Injustice: In this step, educators, after acknowledging the diversity of their students, then begin a discourse about how diversity can manifest as oppression for certain groups of people. In the project, the educator will highlight the factors that have historically barred Latinx populations from high paying technical jobs, and the effect that has on low income Latinx neighborhoods in San Francisco.

4. Social Movements and Social Change: In this step, the educator will share examples of both famous and everyday people who have in the past or are currently working towards correcting the issue of social justice. In the project, I will profile Bay Area based coding and developing programs that focus on Latinx populations like CodeWalker Academy and Code420.
5. Awareness Raising: In this step, educators ask students to share the knowledge they have learned about inequities with others. In this project, students will profile a Bay Area tech company aimed at promoting diversity. This presentation can then be shared with their family, in their other classes, with other high schools in the area, or posted onto a class blog or school website.

6. Social Action: In the final step, students and teachers take direct action on issues that affect their community. In the project, students are creating their own business model and product idea to be shared with the class,

The comprehensive, all-inclusive nature of this framework is what allows it to be an act of critical teaching. Beginning with the student, and expanding to the public, the curriculum includes all components of fostering change through education. Furthermore, it is broad enough that educators can select activities that are content-specific, skill-based, and standard-aligned, allowing opportunity for both personal and academic growth.

Teaching critically means that the educator believes in themself as an agent of change (Duncan-Andrade, 2009), and that they work to actively disrupt systems that negatively impact their students. Critical educators do not just teach content knowledge and skills, but also push for personal growth and transformation in their students. In doing so, they create students that are adaptive, aware, solutions-oriented, and prepared for the world that lies outside of the classroom walls (Duncan-Andrade, 2009).

Summary

In conclusion, the literature included in this literature review highlight both the need for a project that teaches English through STEM content focuses, as well as strategies, both in Second Language Acquisition and Social Justice curriculum, to create the most effective and
beneficial program for the students. In the first section, the importance of investment and ownership in language learning was discussed. Next, the elements of an effective Project Based Learning curriculum was outlined, both in the context of student engagement and its ability to create 21st Century learners, as well as the benefits for English Language Learners. Thirdly, the significance and need for STEM focused language development curriculums were explored in the context of Common Core State Standards for California. Finally, the elements of critical teaching were defined and shown as necessary as a foundation for this project. These four themes comprise the foundations for this project and its development.
CHAPTER III
THE PROJECT AND ITS DEVELOPMENT

Description of the Project
This project was created with the specific intention of targeting challenges faced by
Latinx high school students in San Francisco, a city that has, over the last several years,
evolved into a city characterized by high rent prices and being on the cutting edge of
development of informational technology (O’Connor, 2015). Because of this, San Francisco
has become a mecca for technology workers, included, but not limited to, developers,
engineers, and designers. When considering that nearly half of the tech workers in the larger
Bay Area are transplants (Pogash, 2015), either from other parts of the United States, or even,
international, the competition in the tech industry is high, especially considering the typically
hefty salary that can be promised for someone possessing skills in coding and software
development. This “tech boom,” as it is commonly referred to, slated the city to grow in
population over the last several years, becoming concentrated with tech and start-up
companies, and the jobs that come with them. However, it became clear as years passed that
these companies did not necessarily reflect the diversity of the city, and in fact, by many are
considered to largely attribute to rising rent prices that have made San Francisco unlivable
from many of its long term residents, particularly in neighborhoods like the SoMA, the
Mission and the Tenderloin (Pogash, 2015). Studies showed that Latinx students--a large part
of San Francisco’s native population--were getting Computer Science and Engineering
degrees, but nonetheless, diversity remained at a standstill in many of the Bay Area’s largest
tech companies (Guynn, 2014), which indicates that the disconnect lies less in “hard,” tangible
job skills, and more in “soft,” subjective job skills, like interviewing, salesmanship and basic
business etiquette and IQ (Brar, 2016). This project seeks to expose Latinx high school students to an overview of these “soft” job skills.

The audience for the project is San Francisco educators, particularly those working with ELL, Latinx populations of students. It was designed to be used at the high school level in a 9-12th grade ELD class, or a English Language Arts class where students could benefit from targeted English language instruction. The goals of the project are to not only expose students early to elements of business IQ, salesmanship, and an overview of the tech industry, including profiles on current leaders in tech, different job roles, and the basics of pitching a product idea and drafting a comprehensive business plan to investors. Furthermore, the curriculum seeks to look at the current state of tech through a lens of social justice and action. Modeled after Bree Picower’s “Using Their Words: Six Elements of Social Justice Teaching” (2012), and Jeffrey Duncan-Andrade’s “Critical Hope” theory (2009), the course aims to not only teach students skills, but also make them aware of challenges, systems of oppression and social inequity that disclude certain populations from jobs and financial success. Beyond that, it also makes students aware of social movements and current social action in and around the Bay Area that is aimed at alleviating the issue of lack of diversity in the tech industry.

The project is comprised of a 3-week unit, with each week focused on a particular topic in preparing students for the realities of the current tech job market in San Francisco includes lesson plans, description of materials, all resources, including articles and worksheets, as well as a PowerPoint presentation for each lesson. The project also includes weekly assessments, answer keys, and scoring rubrics for the final project.

**Development of the Project**

I became interested in this project after watching, over the course of the last several years, San Francisco evolve into the highly progressive, cutting edge, tech capital of the
country that is today. When tech first started booming in the city, I remember it being very exciting. As it began to grow, and friends of mine started working these highly paid, highly sought after tech jobs, I realized how, even myself, as a person who had received a Bachelor’s degree, and was now working on a Master’s degree, felt so outside of that world, as though it was unattainable. This led me to wonder how populations who had not had the opportunities that I have might feel about this surge of tech workers coming into their city, if they too felt like this tech infusion was a place where they might always feel like they were on the outside looking in.

Taking on this project meant that I too would need to become well-versed in industries and job skills that I had never personally had to learn for the professional path that I had chosen. I found a job writing product reviews for educational technology applications and web-browsers as a way to get myself familiar with various technical terms corresponding to product development and marketing. I began going to tech meet ups, particularly those aimed at tech workers who are female, Black, or Latinx. I talked to current tech workers and recruiters to try to gauge a real sense of what the tech industry is, and where it is going next. The culmination of these efforts to engage with the industry gave me a foundation for embarking on developing this project. From there, I combined my background and expertise in social justice education, referred to this project as “critical teaching” to align these newly garnered understandings of the tech industry with a pedagogy focused on progression, social change, and social action.

It is for this reason that I chose to begin the project with self-reflection and to end it with a cumulative presentation. I am of the belief that critical progression and transformation begin from the individual, and then expand to the public. This project functions like a spiral,
with the student as the starting point in the middle, with the development of skills and
awareness growing from that point. It functions with the intention of teaching skills that are
adaptable and subject to continual growth. For this reason, educators are given opportunities to
adapt and modify materials to fit the needs of their students. Instructors’ input is encouraged
and demanded within specific activities in order to make the coursework as relevant and
meaningful as possible.

The Project

The project in its entirety can be found in the appendix.
CHAPTER IV
CONCLUSIONS AND RECOMMENDATIONS

Conclusions
San Francisco is a bustling, diverse, and dynamic city, known worldwide for its diverse population and an innovative undercurrent that is woven through the entire fabric of the city. It is no wonder that such a city and the people who live in it would be at the forefront of advancement, setting a precedent for the rest of the nation. However, it has become clear that the diversity and progression that has always characterized San Francisco is not evident in one of its largest and upcoming industries - tech. Black, female, and Latinx workers are represented far less than their White, Asian, and male counterparts. As stated previously, the fundamentals of a capitalist economy state that where there is supply, there is demand (Black, Hashimzade, & Myles, 2009). If the world of the future calls for new levels of informational technology, then it also calls for workers who can perform the skills necessary to produce it, meaning that those workers will highly valued. To actively struggle against systems that marginalize, disclude, and disenfranchise students of color, female students, and English Language Learners, educators must explicitly teach not only academic skills, but also those skills associated with adaptation, personal transformation, navigational social capital, and the belief in succumbing to systems of oppression as a non-viable option for the future (Duncan-Andrade, 2009). This means working alongside students and finding relevant solutions for immediate challenges they will face outside of the walls of a classroom. The significance of this project is that it seeks to not only teach useful skills, but to also combat societal forces that create stratification of people.

This curriculum, with its foundation in critical teaching (Duncan-Andrade, 2009), elements of social justice (Picower, 2012), and project-based learning as a tool for English
Language Development (Lattimer & Ridorian, 2011) seeks to combine academic rigor with social relevance; standards-aligned targeted language instruction with individual student growth. It is my belief that the infusion of these two roles of education-- as the facilitator of both academic and personal growth-- will allow students to thrive in this curriculum.

**Recommendations**

The recommendation that I most wish to impart on anyone who uses this curriculum framework is to think about your students and what they need. This program was meant to be adapted, manipulated, taken apart, and used only as it is most useful to the educator and to the students. It was designed in this way because I hoped for it to be as meaningful as possible. An educator knows their students best, and an educator knows what they mean.

My final recommendation is that the more tangible a concept is, the more likely that it will make a real impact on the student’s lives. There are many resources available for both educators and students in the Bay Area wishing to combat barriers to success for children of color, female students, and English Language Learners, particularly in the tech industry. I implore educators to seek out these resources and help their students get connected with them, so the curriculum transcends into a real life context.
REFERENCES


Brar, Z. (2016, August 15). [In-person conversation].

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APPENDIX

Chapter III: The Project

Week One: The Current State of Tech

Week Two: Getting the Job

Week Three: The Next Great App Idea
Dear San Francisco Educator,

Firstly, thank you for all the work you do and will do for students in our wonderful city. It’s no secret that our city is changing, and everyone has an opinion on the causes and how to adapt and adjust to it. This is just one idea; a drop in the bucket of this large conversation. It is important to note that this curriculum is in no way believing itself to be a silver bullet solution for a giant problem, nor is it intended to proselytize tech careers as the best and only option. Its intention is to offer resources where they have been traditionally limited to communities that have been traditionally overlooked.

Jeffrey Duncan-Andrade, in his essay, “Note to Educators: Hope Required When Growing Roses in Concrete”, he states that an educator’s greatest resource is not funding or curriculum, but themselves (2009). With that being said, think of this unit as a framework--a starting off point. There is nothing more valuable to a student’s learning than the special touch nobody but their teacher can bring. If there are areas where you see opportunities to supplement, replace, or add resources, I encourage you to do so. Furthermore, you know your students better than anyone, and know what they need as far as scaffolding, modifying, and support.

This program provides ample opportunity for extensions. One recommendation I would make towards extending the goals and objectives of this unit would be the element of real life interaction. You can contact San Francisco based tech companies and startups to inquire as to whether they have any community or education outreach programs. Furthermore, you could encourage and support interested students towards applying for youth code programs that are profiled in Week 1. If you know anyone, friend or acquaintance that works in tech, invite them to come in and speak to the class.

To gain access to the Presentation Slides for the unit, educators can email me at caitlinmartin444@gmail.com to retrieve access.

Good luck with this unit, and I hope you find it meaningful.

Best,

Caitlin Martin
Week One: The Current State of Tech

Week One Overview: In this first week, students will explore and develop an in depth understanding about the current position and influence of San Francisco’s tech industry. First, students will position themselves within their communities; understanding themselves as the future workforce of San Francisco and dually as representatives of their culture and heritage. Students will be able to name, distinguish, and define various technical jobs within the industry as a way to conceptualize the function and influence of the tech industry. From there, students will be made aware of issues of marginalization within tech, specifically the factors that contribute to a low representation of Latinx workers in tech companies. Students will then research and present on organizations, businesses, resources, and movements in the Bay Area looking to alleviate issues of diversity and accessibility in the tech industry. Finally, students will select and draft a working idea for an application or platform of a product for Bay Area based high school students. Throughout the course of this curriculum, students will workshop this product idea to develop a comprehensive hypothetical app idea.

Vocabulary: Tech, Developer, Design Team, Product Team, Stereotype Threat, Diversity, Mission Statement, Audience, Impact, Quality (QA), Functionality (UX), Cost, Application, Platform

ELD Standards:
A1: Exchanging information and ideas with others through oral collaborative discussions on a range of social and academic topics
A4. Adapting language choices to various contexts (based on task, purpose, audience, and text type)
A2: Interacting with others in written English in various communicative forms (print, communicative technology and multimedia)
B6: Reading closely literary and informational texts and viewing multimedia to determine how meaning is conveyed explicitly and implicitly through language
C9: Expressing information and ideas in formal oral presentations on academic topics
C12: Selecting and applying varied and precise vocabulary and other language resources to effectively convey ideas

Day 1: What the Heck is Tech?
Day 2: Social Justice and Tech
Day 3: Current Social Movements
Day 4: Designing an App
Day 5: Assessment
<table>
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<tr>
<th><strong>Techies, Tech Industry, Developer, Designer, Product Team</strong></th>
<th><strong>Stereotype Threat, Diversity</strong></th>
<th><strong>Mission, Audience Impact</strong></th>
<th><strong>Quality (QA), Functionality (UX), Cost, Audience, Platform, Content, Application</strong></th>
<th><strong>Developer, Stereotype Threat, Quality, Functionality, Cost, Audience, Platform, Application</strong></th>
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<td><strong>Objectives:</strong> SWBAT: -define Tech Industry, Developer, Designer, Product Team -Create an Self Reflection Map in the context of their culture, city, and the tech industry -Develop a <strong>Know/ Want to Know/ What Did you Learn (KWL) chart about the text industry</strong> --Define various technical roles; name and discuss defining characteristics of San Francisco’s tech industry</td>
<td><strong>Objectives:</strong> SWBAT: -define Navigational Capital, Stereotype Threat, Impostor Syndrome -identify and discuss factors that lead to a lack of diversity in the tech industry -identify and discuss social implications in San Francisco caused by the tech industry</td>
<td><strong>Objectives:</strong> SWBAT: -explore and identify resources, non profits, schools and movements in the Bay Area working towards diversifying tech -research one resource and verbally present findings, noting specifically the organization’s goals, processes, and audience</td>
<td><strong>Objectives:</strong> SWBAT: -define Quality (QA), Functionality (UX), Cost, Audience, Application, Platform -identify quality, functionality, cost and audience in sample business plans -brainstorm and select an application or platform idea</td>
<td><strong>Objectives:</strong> SWBAT: -define Developer, Programmer, Engineer, Quality, Functionality, Cost, Audience through -demonstrate understanding of the current climate of Tech for Latinx residents in SF through an Ecological reflection that expresses their understanding of themselves and the tech industry</td>
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**Lesson One: What the Heck is Tech?**

**Materials:** Poster paper, markers, laptop and projector, W1L1 Powerpoint, Self Map Reflection Worksheet, KWL Chart, Tech Jobs Worksheet, Exit Ticket

**Vocabulary:** *Tech Industry, Developer, Design Team, Product Team*
Lesson Duration: 60 minutes

Introduction: Defining San Francisco (10 minutes) **W1L1 Slide 2**

**Preparation:** Teacher will make and hang up around the room four posters with the following written:

- Describe San Francisco with four adjectives.
- What is your favorite thing about San Francisco?
- How has San Francisco changed since you’ve lived here?
- What does it mean to be from San Francisco?

1. After students are seated, teacher will explain that they will be beginning a new unit about tech in San Francisco. To begin the day’s lesson, students will have six minutes to walk around the room and answer questions about San Francisco. Each student will have a marker and can write their responses directly on the poster.

2. After six minutes, the teacher will ask students to be seated. The teacher will read out a selection of responses from each poster.

Input: Self Map (10 mins) **W1L1 Slide 3**

**Preparation:** Teacher will need a large poster paper and markers. Teacher will distribute a Self Map Reflection worksheet to each student.

1. Teacher will explain that they will be creating a Self Map that represents their how they understand themselves as part of San Francisco.
2. Teacher will explain the various components that should be included in a Self Map. Teacher will ask students, “What makes a person?” [your job, your family, your culture, where you live, education, language] and record response on the board.

3. Teacher will put a blank poster paper on the board. Teacher will explain that they will model making a Self Map on the board, during which students will follow along and create their own Self Maps. [Note: Due to the personal nature of this project, student work will greatly vary.]

Steps to creating a Self Reflection Map:
- Draw a representation of yourself.
- Draw a representation of your identified culture and language.
- Draw a representation of your profession (for students, they could draw their intended future profession, or their profession can be “student”)
- Draw a representation of your education background (for students, they could draw their intended highest level of education, or current level)
- Draw a representation of where you currently live.

Teacher will ask students to share and explain their Self Map to their seat partner.

Concept Exploration: What is Tech? (30 mins) W1L1 Slides 4-12
Preparation: Teacher will distribute a KWL chart to each student. Teacher will distribute a Tech Jobs Worksheet to each student.

[Note: If students have never used a KWL Chart before, teacher should explain that for a given topic, students, in the first column “K”, record what they already know about a topic; in the second column “W”, they record what they want to know about a topic; in the third column “L”, they record what they have learned about a topic after the lesson or instruction.]

1. Teacher will ask and record student responses onto “Student Response Slide” in U1L1 Powerpoint:
   - What is tech?
   - What do tech companies do?
● What does it mean to be a “techie”?

Teacher will ask students to work with a partner to fill in the “K: What Do you Know” section in the KWL chart to show what they already know about tech industry and workers.

2. Teacher will ask and record student responses onto “Student Response Slide” in W1L1 Powerpoint:
   ● What questions do you have about tech?
   ● What kinds of tech jobs do you know of?

Teacher will ask students to work with a partner to fill in the “W: What Do you Want to Know” section in the KWL chart to show what they want to know about tech industry and workers.

3. Teacher will show Teacher plays the “What Most Schools Don’t Teach” video on W1L1 Slide 8. When the video is over, students will independently fill in the “L: What Did you Learn?” section in the KWL chart to show what they learned about the tech industry and workers. Teacher will ask and record student responses onto “Student Response Slide” in W1L1 Powerpoint.

4. Teacher will introduce three different types of roles in tech: Designers, Developers and Product Team by explaining that each of these three teams play a part in creating an app. Teacher will briefly explain what each job does. [Note: Use information and follow discussion prompts and video link from Slide 11]

5. Teacher will play the video “Who Does What in the Tech Industry”. Teacher should pause the video after each part to give students time to write, and make sure students have all the important information.

6. When the video is over, teacher asks students get into small groups (3-4) to compare video notes.

7. Teacher will project a Tech Jobs Worksheet from the W1L1 Slide 12. Teacher will take student volunteers to share notes that they took to define and distinguish each of the different roles. Teacher will record responses into the Powerpoint slide.
### Student Response Page

**What questions do you have about tech?**
**What kind of tech jobs do you know about?**

### About Tech Video Link

https://www.youtube.com/watch?time_continue=8&v=nKlu9yen5nc

### What did you learn about the tech industry and tech workers?

### Student Response Page

### Who does what in the tech industry?

- There are different job roles needed to make an app
  - Design Team: think of how the app will look and work
  - Developers: write code to make the app work
  - CODE: a set of instructions for a computer
  - Product Team: thinks about how the customer will use the product, the user experience, and gives suggestions to the designers and developers

https://www.youtube.com/watch?v=iSpp5_D81aw
Reflection (5 mins) **W1L1 Slide 13**

1. Teacher will facilitate a group discussion about what students have learned about the tech industry and different roles within the tech industry. [Note: Use information and follow discussion prompts from Slide 13]

1. Teacher will direct students to talk to their seat partner to discuss the following questions:
   - What was something you learned about the tech industry or tech workers today that surprised you?
   - Did you mind change about the tech industry in any way?
   - Would you ever be interested in working in the tech industry? Why or why not?

After each question, the teacher will ask one student to share their response with the class.
Exit Ticket (5 mins)

1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Self Reflection Map
The Tech Industry and Tech Workers

|----------------------|-----------------------------|------------------------|

*Adapted from Donna Ogle (1986)*
## Job Roles in Tech

<table>
<thead>
<tr>
<th>FRONT END DEVELOPER</th>
<th>BACK END DEVELOPER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESIGN TEAM</th>
<th>PRODUCT TEAM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A developer ________________________________________________________________.

The product team ____________________________________________________________.

The design team ____________________________________________________________.

Name ____________________________  Date__________________________
### Job Roles in Tech (Answer Key)

<table>
<thead>
<tr>
<th>FRONT END DEVELOPER</th>
<th>BACK END DEVELOPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>- takes the design from the design team and turns it into code</td>
<td></td>
</tr>
<tr>
<td>- code is a set of instructions for a computer</td>
<td></td>
</tr>
<tr>
<td>- uses programs like HTML, JavaScript and CSS</td>
<td></td>
</tr>
<tr>
<td>- take code from the front end developer</td>
<td></td>
</tr>
<tr>
<td>- write codes so that the app or product actually works</td>
<td></td>
</tr>
<tr>
<td>- use tools like Ruby, Python, PHP, and Java</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESIGN TEAM</th>
<th>PRODUCT TEAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>- thinks about the way things look</td>
<td></td>
</tr>
<tr>
<td>- thinks about how things work</td>
<td></td>
</tr>
<tr>
<td>- uses Photoshop, Illustrator</td>
<td></td>
</tr>
<tr>
<td>- they give the design to the developers</td>
<td></td>
</tr>
<tr>
<td>- the product team handles the business side of an app</td>
<td></td>
</tr>
<tr>
<td>- they test how it will be used, what the experience will be like for the customer, etc</td>
<td></td>
</tr>
<tr>
<td>- they then tell the developers and designers where to make changes</td>
<td></td>
</tr>
</tbody>
</table>

A developer creates codes or instructions that make the app work.

The product team focuses on the user experience and how the product will work for the customer.

The design team thinks about how the app will look and work.
Exit Ticket

Match up the word with the definition:

<table>
<thead>
<tr>
<th>Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer</td>
<td>the team that works with quality and user experience</td>
</tr>
<tr>
<td>Tech industry</td>
<td>the team that comes up with ideas for apps, softwares and platforms</td>
</tr>
<tr>
<td>Product team</td>
<td>companies that develop and sell technology</td>
</tr>
<tr>
<td>Design team</td>
<td>builds and creates software applications</td>
</tr>
</tbody>
</table>

What is one thing you learned about the tech industry?
Exit Ticket *(Answer Key)*

Match up the word with the definition:

- **Developer** the team that works with quality and user experience
- **Tech industry** the team that comes up with ideas for apps, softwares and platforms
- **Product team** companies that develop and sell technology
- **Design team** builds and creates software applications

What is one thing you learned about the tech industry? *Answers will vary*
Lesson Two: Social Justice and Tech

Materials: Poster paper, markers, laptop and projector, W1L2 Powerpoint, Articles, Video Notes Worksheet, Jigsaw Activity Worksheet, Exit Ticket

Vocabulary: Stereotype Threat, Diversity

Lesson Duration: 60 minutes

Introduction Activity (10 mins) W2L2 Powerpoint Slides 2-6

Preparation: Teacher will post signs in different parts of the room for opening activity. Signs will read:

- Agree
- Disagree
- Neutral

1. After students enter the classroom, teacher will explain that they will be doing an activity in which students will stand in certain parts of the room to express their opinion. The teacher will display PowerPoint slides with questions, as well as read out the questions:
   - Tech is useful for our society.
   - The tech industry has changed San Francisco negatively.
   - The tech industry is diverse.
   - I have no impact on the future of the tech industry.

2. After each question, have students remain at their chosen spot. The teacher will ask at least one volunteer from each group to share their rationale for their choice. When finished, ask the students to be seated.
Agree or disagree?

Directions:
- After each statement, please move towards the sign that shows your opinion on the statement.
- If you agree with the statement, stand under “Agree”. If you disagree with the statement, stand under “Disagree”. If you both agree and disagree, or are unsure, stand under “Neutral”.

The tech industry is diverse.

The tech industry has changed San Francisco negatively.

Tech is useful for our society.

I have no impact on the future of the tech industry.
Input: Pros and Cons of Tech Boom (10 mins) **W1L2 Slides 7-8**

**Preparation:** Teacher will print out a Video Notes Worksheet for each student.

1. Teacher distributes a “Is the Tech Industry Hurting or Helping San Francisco’s Troubled Tenderloin?” Video Notes Worksheet to each student to take notes on during the video. Teacher will explain that students will watch a video about the pros and cons of tech industries moving into San Francisco’s Tenderloin neighborhood. After the video they will discuss their findings.

2. Teacher plays video, pausing periodically to give students time to write.

3. After the video ends, teacher will show Slide 8, and students will answer questions and discuss findings from the video.

<table>
<thead>
<tr>
<th>Pros and Cons of Tech in San Francisco</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://www.youtube.com/watch?v=CaTfJZvm1I8">https://www.youtube.com/watch?v=CaTfJZvm1I8</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pros and Cons of Tech in San Francisco</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What were some of the negative effects of tech industries growing in San Francisco?</td>
</tr>
<tr>
<td>• What were some of the positive effects of tech industries growing in San Francisco?</td>
</tr>
<tr>
<td>• What are ways that you noticed change in neighborhoods like the Mission and Tenderloin change since the tech boom?</td>
</tr>
<tr>
<td>• What is your opinion—-is tech hurting or helping San Francisco, or both?</td>
</tr>
</tbody>
</table>

**Concept Development: Diversity in Tech and Social Movements (30 mins) **W1L2 Slides 9-15**

**Preparation:** Teacher will print out and copy sets of articles for students to work with in Jigsaw Activity. Teacher will distribute a Jigsaw Activity Worksheet to each student.

**Links to Articles:**


1. Teacher will explain that in this activity, small groups of students (4-5 students) will read various articles. Each group will be assigned one article to read. Their task is to identify and select three to five important takeaways from the article.

2. Students will read the articles independently, and then discuss their findings with their small groups. Each group will synthesize their takeaways and decide upon three key ideas from the article.

3. Students from each group will be numbered off (Student 1, Student 2, Student 3, Student 4, etc). Teacher will ask all the Student 1, Student 2, Student 3, and Student 4 representatives to meet in another small group. Those students will then share their findings from their specific article with students from the other groups. These new groups will then synthesize their findings between articles to establish the Main Idea and three key details.

4. Teacher will bring together the entire group. Teacher will ask each group that contains representatives from each article to share their findings. Teacher will record student responses on the Student Response slide.

5. Teacher will read statistics about Computer Science in K12 education, and introduce the concept of Stereotype Threat. [Note: Use information and follow discussion prompts from Slides 11-15]
Reflection (5 mins) W1L2 Slide 16

1. Teacher will facilitate a group discussion about issues of social justice surrounding the tech industry for Black, Female, Latinx, and English Language Learning students. [Note: Use information and follow discussion prompts from Slide 16]

Exit Ticket (5 mins)
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
“Tech Industry: Will it Hurt or Help San Francisco's Troubled Tenderloin?” Video Notes

Why did tech industries start setting up their offices in the Tenderloin?

What is an SRO?

Why are the SROs in danger because of the tech industry?

Why does Dell think that the tech boom is a positive change to the Tenderloin?

<table>
<thead>
<tr>
<th>Pros of Tech Boom/ Gentrification</th>
<th>Cons of Tech Boom/ Gentrification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
“Tech Industry: Will it Hurt or Help San Francisco's Troubled Tenderloin?” Video Notes

Why did tech industries start setting up their offices in the Tenderloin?

In 2012, tech companies were offered large tax breaks and cheap rent to set up their offices in the Tenderloin.

What is an SRO?

SRO stands for Single Room Occupancy. They are a type of living situation common in the Tenderloin. Residents live in hotel like buildings in rooms with only a bed and bathroom. They are offered at less expensive rent than the rest of San Francisco.

Why are the SROs in danger because of the tech industry?

If the technology companies buy up the SRO buildings and turn them into offices, then those buildings won't be available to live in.

Why does Dell think that the tech boom is a positive change to the Tenderloin?

Dell believes that the tech industry has a positive change in the Tenderloin because he believes it can provide many unemployed people with jobs. He says that having tech offices in the neighborhood means more businesses, like restaurants and coffee shops, which brings money into the neighborhood.

<table>
<thead>
<tr>
<th>Pros of Tech Boom/ Gentrification</th>
<th>Cons of Tech Boom/ Gentrification</th>
</tr>
</thead>
<tbody>
<tr>
<td>-More businesses into low income neighborhoods</td>
<td>-More money into the area causes inflation and rent increases</td>
</tr>
<tr>
<td>-This means more money into the neighborhood, possibly less crime and less drug use</td>
<td>-Possibility of tech industries buying out government subsidized housing which could cause displacement</td>
</tr>
<tr>
<td>-Tech companies give back to the</td>
<td>-Tech culture takes over neighborhood</td>
</tr>
<tr>
<td>neighborhood</td>
<td>culture</td>
</tr>
</tbody>
</table>
Jigsaw Activity

Title of my article: ___________________________________________________

Three key details:

1.

2.

3.

The main idea of this article is

Three key details from all articles:

1.

2.

3.

The main idea of all four articles is

Name ______________________  Date____________________________

Name ______________________  Date____________________________
Exit Ticket

Explain Stereotype Threat in your own words.

What is one positive effect of the tech industry in San Francisco? What is one negative effect of the tech industry in San Francisco?
Exit Ticket (Answer Key)

Explain Stereotype Threat in your own words. *Answers will vary

Stereotype threat happens when certain groups start to believe in the negative stereotypes about them. When they start to believe in the stereotypes, they begin to do what those stereotypes say. One example is Black, English Language Learners, and female students performing worse on standardized tests than White and Asian men because the stereotype says that they are less intelligent.

What is one positive effect of the tech industry in San Francisco? What is one negative effect of the tech industry in San Francisco? *Answers will vary

Positive effects:
- Creates more jobs in the city, both in tech, and in the businesses that pop up around tech buildings, like coffee shops and restaurants
- Cleans up dangerous, low income neighborhoods from crime and drugs

Negative effects:
- Causes rent prices to increase
- Tech industry can buyout affordable housing
- Overall, costs in the city increase because of the increase in money from tech
Lesson Three: Current Social Movements

Vocabulary: Mission statement, audience, impact

Lesson Duration: 60 minutes

Introduction Activity (10 mins) W1L3 Slide 2
Preparation: Teacher will need to give each student three post it notes. Teacher will need to hang a large poster that says “How does change happen?”

1. As students enter the room, the teacher will direct them to respond to the question, “How does change happen?” with three separate responses on the post it notes on their desk. Teach will display W1L3 Slide 2 that has suggestions to aid student responses.

2. Once students have crafted their responses, they can stick their post-it note to the poster that reads “How does change happen?”

3. When all students have posted their responses, teacher will read a selection of responses (number will vary based on time available).

Input: Profiling Disruption (10 mins) W1L3 Slides 3-6
Preparation: Teacher will project W1L3 Powerpoint.
1. Teacher will introduce the concept of “disruption” as a force of change. Teacher will define and discuss the concept with students. [Note: Use information and follow discussion prompts from Slides 3-4]

2. Teacher will explain the activity to the students as a report on a Bay Area based organization that is focused on fixing the diversity problem in tech. Teacher will explain that students will focus on the following areas when profiling a company: Mission Statement, Audience, and Impact [Note: Use information and follow discussion prompts from Slide 5]

3. Teacher will define Mission Statement, Audience and Impact [Note: Use information and follow discussion prompts from Slide 5]
Concept Development: Report on a Company (30 mins) W1L3 Slides 7-9

Preparation: Each student will need access to a computer. Teacher will distribute the Student Report Guide to each student.

1. Teacher will model how to navigate a company website to locate information about the organization’s Mission Statement, Audience, and Impact through the organization CodeWalker Academy. [Note: Use information and link from Slide 7]

2. Teacher will use the website link from Slide 7 to project CodeWalker Academy’s website. At this point, the teacher should be modeling thinking and narrating steps to finding information. [Note: The Student Report Guide will have tips for navigating websites in each section]

3. Teacher will model writing sentences to explain and identify the company’s Mission Statement, Audience, and Impact. [Note: for CodeWalker Academy, all information is found in the “Mission” link on their homepage]
4. Teacher will explain report directions and requirements. Students will pick one organization to profile from a list of options on the Student Report Guide. [Note: Teacher can decide to assign organizations or allow students to pick for themselves]

5. Students will research and complete the Student Report Guide worksheet.

6. Students will have five minutes to share their findings in small groups.
Reflection (5 mins)  W1L3 Slide 10

1. Teacher will facilitate a group discussion about organizations engaged in disrupting the tech industry [Note: Use information and follow discussion prompts from Slide 10]

Exit Ticket (5 mins)

1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Profiling Disruption: Student Report Guide

Go to: http://bayareacodes.org/code-programs/ and select one Bay Area based coding and tech job advancement organization to report on.

1. Company Information

<table>
<thead>
<tr>
<th>Company Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
</tr>
<tr>
<td>Purpose:</td>
</tr>
<tr>
<td>Year Founded/ Founders:</td>
</tr>
</tbody>
</table>

2. Mission Statement (TIP: On the homepage, look for a link that says “Mission Statement” or “Who We Are” to find this information)

<table>
<thead>
<tr>
<th>Mission Statement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals:</td>
</tr>
</tbody>
</table>

3. Audience (TIP: On the homepage, look for a link that says “Who We Serve” to find this information)

| Audience:                            |

4. Impact (TIP: On the homepage, look for a link that says “Results” or “What We Do” or “Our Impact” to find this information)

| Partners:                            |
| Accomplishments/ Results: |  |
Exit Ticket

Why did you choose the company you reported on?

Define these terms in your own words.

**Disruption:**

**Impact:**
Exit Ticket (Answer Key)

Why did you choose the company you reported on?* Answers will vary

Define these terms in your own words.

**Disruption:** Disruption is a change in the way things have been. It is making a job to the process of something or how something has been happening. It can be positive or negative. People who want to disrupt diversity in the tech industry want to get more people of color, English Language Learners, and women into tech.

**Impact:** Impact is what a company is doing and how they are meeting their goals. Impact is the results and accomplishments of a company. Impact is how capable a company is to help fix a problem.
Lesson Four: Designing an App

Materials: Laptop and projector, W1L4 Powerpoint, Creating Your App Student Guide

Vocabulary: Quality (QA), Functionality (UX), Cost, Content, Audience, Platform, Application

Lesson Duration: 60 minutes

Introduction Activity (10 mins) W1L4 Slides 2-3
Preparation: Teacher will project W1L4 Powerpoint.

1. After students enter the classroom, teacher will split the class in half. One half of the class will form a circle facing out. The other half will form a circle around the inner circle, facing the student in the inner circle. Each student should have a partner across from them. [Note: Use information and follow discussion prompts from Slide 2]

2. Students in the inner circle will answer first. After one minute, the speaker will switch, and the student in the outer circle will answer. After each question, the students from the inner circle will move one step to the left, and the student from the outer circle will move one step to the right. Follow this routine for the remaining questions. [Note: Use information and follow discussion prompts from Slide 2]

3. Teacher will read a series of five questions about the student’s mobile or web app preferences [Note: Use information and follow discussion prompts from Slide 3] for five rounds of questions.

<table>
<thead>
<tr>
<th>Introduction Activity: Concentric Circles</th>
<th>Concentric Circle Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directions:</td>
<td>1. What was the first app you ever downloaded? What did it do?</td>
</tr>
<tr>
<td>1. Half of the class will stand in the inner circle facing the outer circle. The other half will stand in the outer circle facing the inner circle.</td>
<td>2. What is your favorite Social Media (Facebook, Instagram, Snapchat, Twitter) app? Why?</td>
</tr>
<tr>
<td>2. You will discuss a question with the person facing you, each person getting one minute each to answer.</td>
<td>3. What app do you have that is most useful to you (Wayz, Venmo)? Why?</td>
</tr>
<tr>
<td>3. After each question, the inner circle will move one step to the LEFT and the outer circle will move one step to the RIGHT to get a new partner.</td>
<td>4. What app do you use most on your phone? How much do you use it?</td>
</tr>
<tr>
<td>4. We will have five rounds of questions.</td>
<td>5. What app do you wish existed, but doesn’t yet? What would it do? Why do you want it?</td>
</tr>
</tbody>
</table>

Input: Building an App (10 mins) W1L4 Slides 4-7
1. Teacher will begin by showing the “Step by Step Mobile App Development Process” video on W1L4 Slide 4 and tell students that they will be engaging in a turn and talk after the video. Stop video at 2:05. [Note: Use information and follow discussion prompts from Slide 4]

2. Teacher reviews the information from the video and explicitly teaches vocabulary: *platform, content, quality, functionality, cost.* [Note: Use information and follow discussion prompts from Slide 5]

3. The class will look at a case study of the money sharing mobile app, Venmo. They will look at screenshots of the application to explore its features. Then, in partners, students will answer questions about its functionality, platform, audience, and cost. [Note: Use information and follow discussion prompts from Slides 6-7]

4. Teacher displays diagram that demonstrates the connection between quality, functionality, audience, platform and cost.
Concept Development: Designing Your App (30 mins) W1L4 Slide 9

Preparation: Teacher will distribute the Creating Your App Student Guide.

1. Teacher will explain that students have 20 minutes to work with a partner to come up with an initial idea for an app for Bay Area high school students. Teacher will remind students to think back to the introduction activity in which they discussed with a partner about an app that they wished existed but didn’t for ideas. [Note: Clearly, the apps will need to be school appropriate, and teacher can gauge based on their class the level to which this needs to be discussed.] Teacher will explain that they will be developing this idea throughout the Unit.

2. Teacher will briefly explain the Creating Your App Student Guide and its parts. Students will need to work with their partner to decide on the following:
   - Name of the app
   - Functionality: What does it do?
   - Audience: Be specific about what kind of high school student-- someone looking to get into college, someone interested in music, someone who plays sports
   - What platform will you use? Web or mobile app? For what device?
   - Where do you see there being cost to create the app? What will it cost the customer, or is it free? How will the cost you choose affect its functionality and quality?

   [Note: Use information and follow discussion prompts from Slide 9]

3. Students work to complete the Create Your Own App Guide with a partner.
Reflection (5 mins)

1. Student groups briefly share with the whole group (20-30 second presentation) about their app idea.

Exit Ticket (5 mins)

1. Teacher will distribute the Exit Ticket and collect them at the end of class.
### Create Your Own App Guide

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functionality</td>
</tr>
<tr>
<td>Audience (Be specific)</td>
</tr>
<tr>
<td>Platform</td>
</tr>
<tr>
<td>Cost (To the developer and to the customer)</td>
</tr>
</tbody>
</table>

How will the cost you decided on affect your quality and functionality?

Why did you choose that specific audience?
Start an initial design for your logo!

Name ____________________
Date ____________________
Exit Ticket

1. Draw a diagram that shows the relationship between: functionality, quality, audience, platform and cost
Exit Ticket (Answer Key)

1. Draw a diagram that shows the relationship between: functionality, quality, audience, platform and cost

Note: Student answer should include all of this information, but can presented in a variety of ways.
Lesson Five: Assessment

Materials: Large poster paper, markers, Laptop and projector, W1L5 Powerpoint, Week One Assessment

Vocabulary: Developer, Stereotype Threat, Quality (QA), Functionality (UX), Cost, Content, Audience, Platform, Application

Lesson Duration: 60 minutes

Introduction Activity (10 minutes) W1L5 Slide 2
Preparation: Teacher will prepare large poster paper and markers for each small group.

1. After students enter the room, the teacher will explain that they will be doing a quick review activity to get them ready for the assessment.

2. Students will get into small groups (4-5) and they will have five minutes to write down as much as they can remember about what they learned this week.

3. After five minutes, each small group will share out their responses.

Input: Getting Ready for the Assessment (5 mins)
Preparation: Teacher will copy and distribute the Week One Assessment for each student.

1. Teacher will use this time to pass out the assessment, assure that students have all the materials they need, and take any questions before students begin the assessment.

Concept Development (35 minutes) W1L5 Slide 3

1. Students will complete the Week One Assessment.

Please allow 35 minutes for students to complete the assessment. If students finish early, they should continue working on the logo design for their app. A large logo template can be found at the end of this lesson.

Reflection (5 mins) W1L5 Slide 4

1. Teacher will facilitate a group discussion about what students learned in this week. [Note: Use information and follow discussion prompts from Slide 4]

Exit Ticket (5 mins)

*NOTE: THIS ASSESSMENT LESSON DOES NOT INCLUDE AN EXIT TICKET. TEACHER CAN DECIDE HOW TO BEST USE THE REMAINING CLASS TIME AFTER STUDENTS FINISH THE ASSESSMENT.
Week One Assessment: The Current State of Tech

Directions: Please answer each question completely.

Draw a diagram that shows the relationship between: functionality, quality, audience, platform and cost.

Explain Stereotype Threat in your own words.

What is one positive effect of the tech industry in San Francisco? What is one negative effect of the tech industry in San Francisco?

Why are there companies like CodeWalker Academy who want to disrupt the tech industry? What impact are they trying to make? What do they want to change?
<table>
<thead>
<tr>
<th>Vocabulary Matching:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disruption</td>
</tr>
<tr>
<td>Stereotype Threat</td>
</tr>
<tr>
<td>Functionality</td>
</tr>
<tr>
<td>Tech Industry</td>
</tr>
<tr>
<td>Audience</td>
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<td>Developer</td>
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<td>Designer</td>
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<td>Platform</td>
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</table>
Week One Assessment: The Current State of Tech *(ANSWER KEY)*

**Directions:** Please answer each question completely.

**Draw a diagram that shows the relationship between: functionality, quality, audience, platform and cost.**  
* ANSWERS WILL VARY

**Explain Stereotype Threat in your own words.**

Stereotype threat happens when certain groups start to believe in the negative stereotypes about them. When they start to believe in the stereotypes, they begin to do what those stereotypes say. One example is Black, English Language Learners, and female students performing worse on standardized tests than White and Asian men because the stereotype says that they are less intelligent.

**What is one positive effect of the tech industry in San Francisco? What is one negative effect of the tech industry in San Francisco?**

**Positive effects:**
- Creates more jobs in the city, both in tech, and in the businesses that pop up around tech buildings, like coffee shops and restaurants  
- Cleans up dangerous, low income neighborhoods from crime and drugs

**Negative effects:**
- Causes rent prices to increase  
- Tech industry can buyout affordable housing  
- Overall, costs in the city increase because of the increase in money from tech

**Why are there companies like CodeWalker Academy who want to disrupt the tech industry? What impact are they trying to make? What do they want to change?**

They want to disrupt the tech industry because the tech industry in San Francisco is not diverse. Currently, many groups of people, including Latinx, Black, and female workers are not represented fairly in tech. These companies want to make an impact by teaching code to these groups so they can work in tech.
Vocabulary Matching:

- **Disruption**: what an app can do, how the customer uses the app
- **Functionality**: a person who creates the app by writing code
- **Stereotype Threat**: who the app is made for, who uses the app
- **Tech Industry**: to change or interrupt the current process (of something)
- **Audience**: when people believe the negative stereotypes about their group
- **Developer**: person who creates the idea for an app to give to the developer
- **Designer**: where the app works (web, mobile, device)
- **Platform**: companies who create and sell informational technology
My App Logo Design
Week 2: Getting the Job

Week Two Overview: In this middle week, students will learn the basic process of finding, applying, and interviewing for jobs. In the first lesson, students will learn about the purpose and format of a Resume and Cover Letter, as well as proper action verbs and adjectives to describe skills, qualities and experience. In the second lesson, students will learn how to write Resumes and Cover Letters for specific job postings. In the third lesson, students will learn tips and tricks for mastering a job interview, as well as workshop and practice answering tough interview questions. In the fourth lesson, students will apply learning from the previous three lessons to decide upon the skills, qualities and experience they would need for the hypothetical team for their product idea. They will write sample interview questions. The assessment for this week is three parts. The first part will ask students to write descriptions of skills and experiences using action verbs; the second part will ask students to look at a sample job posting and write short job specific cover letter; the final part will be each student verbally answering a sample interview question.

Vocabulary: Hard skills, Soft skills, Qualifications, Requirements, Experience, Interview Etiquette, Body Language, First Impression

ELD Standards:

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<tr>
<td><em>Hard skills, Soft skills</em></td>
<td><em>Qualifications, Requirements, Experience</em></td>
<td><em>Body Language, First Impression</em></td>
<td><em>(Review) Hard skills, Soft skills, Qualifications, Requirements, Experience</em></td>
<td><em>Hard skills, Soft skills, Qualifications, Requirements, Experience, Body Language, First Impression</em></td>
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| Define: **Hard skills**  
-Identify key elements of a Resume  
-Select action verbs and adjectives to describe qualities and skills  
-Create a resume on Linkedin | Define: **Soft skills, Qualifications, Requirements, Experience**  
-Name the purpose of a Cover Letter  
-Notice salient features of a job posting and apply that to writing a job-specific cover letter with a partner | Define: **Interview Etiquette, Body Language, First Impression**  
-Gain information from articles towards understanding tips and tricks to mastering job interviews  
-Workshop with a small group to answer challenging interview questions | Define: **Hard skills, Soft skills, Qualifications, Requirements, Experience, Body Language, First Impression**  
-Demonstrate ability to describe skills and experiences using action verbs  
-Demonstrate ability to use information in a job posting to write a job-specific cover letter  
-Verbally answer a challenging interview question |
Lesson 1: The Resume


Vocabulary: *Hard skills

Lesson Duration: 60 minutes

Introduction Activity: (10 mins) W2L1 Slides 2-3
Preparations: Teacher will need to prepare and distribute blank pieces of paper.

1. As students enter the classroom, teacher directs students to take a piece of blank paper and fold the paper in half horizontally. In one column, they should title it “Experiences” and in the other column they should title it “Skills” [Note: Use information and follow discussion prompts from Slide 2]

2. Students have three minutes to write down as many skills and experiences about themselves as they can think of.

3. Teacher will ask students to stop writing after three minutes. Teacher will direct students to get into small groups of four. Each small group will get a new blank sheet of paper.

4. The small groups will compare each other’s Skills/Experiences brainstorm. The groups will write down all of the common Skills/Experiences they have. At least two people in the group have to have the same quality or skill for it to go onto the new list.

5. The teacher will ask small groups to pick one experience and one skill to share to the group, which the teacher will record onto Student Response Page Slide 3. Teacher will explain that they will use these responses for another part of the lesson.
Input: (10 mins) W2L1 Slides 4-7

**Teacher will need to print the Action Verb Word Bank**

- Teacher explains that a resume is a comprised list of a candidate’s educational background, work experience, volunteer experience, and skills.

- Teacher explains that job applicants submit resumes when they apply for jobs to give hiring managers a sense of their skills and experience that is relevant to that job.

- Teacher will play “How to Write a Resume” video, produced by Forbes Magazine.

- Teacher will show sample resume so students can see the formatting, as well as the descriptions under each experience heading.

- Teacher will model how to use precise and descriptive action verbs to describe the skills and experiences associated with making breakfast.

- Teacher will tell the students that they will now try to use precise and descriptive action verbs to describe the skills and experiences associated with getting dressed. Students will have a Action Verb Word Bank. Students will share out responses.
Concept Development (30 mins) W2L1 Slide 8-10

Teacher will need to decide whether they want to use their own LinkedIn account as a model, or if they would like to create a new account for this lesson. Teacher should get access to the student’s school email accounts in case the students don’t know them.

1. Teacher will go to LinkedIn.com. On the homepage, teacher will make sure students see how to sign up for a LinkedIn account using their school email account.

2. Teacher will then either log into their own account if they have one to show students the different sections to be filled in, make an example account with an alternate email address if they do not want to show their personal account, or create a new account if they do not have a LinkedIn account.

3. Teacher will go through and explain each section of a LinkedIn profile:
   - Summary
   - Work Experience
   - Education Background
   - Volunteer Experience
   - Clubs/Associations
   - Skills
4. Students will go onto LinkedIn.com and create their own resume. Teacher will explain that this is simply an initial resume, and that if they don’t have information to put in certain sections, they should leave it blank. They should not upload a photo at this time.

Create Your Own LinkedIn

Go to LinkedIn.com
Make a new account using your school email.
Do not upload a photo.
Fill in as many sections as you can. If there are areas that you cannot fill in, just move on to something else.

Reflection (5 mins) W2L1 Slide 11
1. Teacher will facilitate a group discussion about what students learned about writing resumes [Note: Use information and follow discussion prompts from Slide 11]

Exit Ticket (5 mins) W2L1 Slide
Preparation: The teacher will need to print the Exit Tickets.
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Action Verb Word Bank

accelerated accomplished achieved acquired activated adapted adjusted administered advised allocated analyzed annotated anticipated applied appraised arranged articulated assembled assessed assigned attained authored balanced briefed budgeted calculated catalogued categorized chaired changed channeled charted clarified coached coded collaborated collected communicated compared competed compiled completed composed computed conceived conducted confronted consolidated constructed contacted continued contracted convened coordinated corresponded counseled created critiqued defined delegated delivered demonstrated derived designed detected determined developed devised diagnosed directed discovered dispensed Displayed distributed drafted dramatized earned edited educated elicited employed encouraged endured enlisted entertained established estimated evaluated examined exchanged executed exercised exhibited expanded expedited experimented explained explored facilitated financed focused forecasted formulated fostered grouped guided identified Illustrated implemented imposed Improved increased influenced Informed initiated inquired Inspected installed instilled Instituted instructed insured interpreted intervened interviewed introduced invented inventoryed investigated judged lectured listened located maintained managed marketed mastered measured mediated modeled modified molded monitored motivated negotiated observed obtained operated organized outlined oversaw participated perceived performed persuaded planned predicted prepared prescribed presented presided processed produced programmed promoted protected provided publicized published purchased questioned recommended recorded recruited reduced regulated reinforced rendered repaired reported represented reproduced researched resolved responded restored retained retrieved reviewed revised rewrote routed scheduled searched selected served serviced shaped shared simplified solicited solved sought specified stimulated studied succeeded suggested summarized supervised supported surveyed synthesized systematized targeted taught tested trained translated tutored updated utilized verified visualized wrote
Exit Ticket

In your own words, what is the purpose of a resume?
Exit Ticket (Answer Key)

In your own words, what is the purpose of a resume?

The purpose of a resume is to show an employer a full list of all your education, work, and volunteer experience that is relevant to the job.
Lesson 2: The Cover Letter

Materials: Laptop and projector, W2L1 Powerpoint, Blank paper, Action Verb Word Bank Handout (from Lesson 1), Spotify Job Posting, Cover Letter Practice Worksheet, Exit Ticket

Vocabulary: Soft skills, Qualifications, Requirements, Experience

Lesson Duration: 60 minutes

Introduction Activity: (10 mins) W2L2 Slide
Teacher will distribute blank pieces of paper.

1. As students enter the classroom, teacher directs students to take a piece of blank paper and fold it in half horizontally. They should title one column “Good Qualities” and the other should be “Challenging Qualities”. [Note: Use information and follow discussion prompts from Slide 2]

2. Students have three minutes to write down as many qualities about themselves as they can think of.

3. Teacher will ask students to stop writing after three minutes. Teacher will direct students to get into small groups of four. Each small group will get a new blank sheet of paper.

4. The small groups will compare each other’s Qualities brainstorm. The groups will write down all of the common Qualities they have. At least two people in the group have to have the same quality or skill for it to go onto the new list.

5. The teacher will ask small groups to pick one experience and one skill to share to the group, which the teacher will record onto Student Response Page Slide 3. Teacher will explain that they will use these responses for another part of the lesson.
Teacher will need to distribute Action Word Bank Handout

- Teacher explains that a cover letter is a letter of interest to the hiring team where the candidate has a chance to describe in greater detail skills and experiences on their resume.

- Teacher explains that job applicants submit over letters so that the hiring manager can get a better sense of their personal qualities, as well as stronger evidence for why they are fit for the role.

- Teacher explains that cover letters show a candidate’s soft skills. Soft skills are skills that can’t be measured or tested easily, like the ability to work well with others or a good sense of humor.

- Teacher will play “How to Write a Cover Letter” video, produced by Forbes Magazine.

- Teacher will show sample resume so students can see the formatting, as well as how the candidate elaborated on their skills and experiences.

- Teacher will model how to use descriptive language and relevant examples to elaborate on the quality of being able to work well with others.

- Teacher will tell the students that they will now try to use descriptive language and relevant examples to elaborate on the quality of showing perseverance.

**Input: (10 mins) W2L2 Slides 4-7**
Concept Development: Using Job Postings to Write Cover Letters (30 mins) W2L2 Slides 8-9

Teacher will need to print out copies of the Spotify job posting and Cover Letter Practice Worksheet

- Teacher will explain that job postings detail the responsibilities of a job, the desired skills, qualifications, and work experience (hard skills), as well as desired qualities (soft skills).

- Applicants who write effective cover letters use job postings to decide what experiences and qualities to elaborate upon in order to prove they are right for the job.

- Teacher will display a job posting from Spotify for a role as an iOS Engineer.

- Students will work with partners to identify the responsibilities of the role, the hard skill requirements, and soft skill requirements.

- They will use that information to write a one paragraph cover letter for this role.

- Teacher should ask a handful of partnerships to share out to offer feedback.
1. Teacher will facilitate a group discussion about what students learned about how to use information in job postings to write specific cover letters. [Note: Use information and follow discussion prompts from Slide 10]

Exit Ticket (5 mins) W2L2 Slide
Preparation: Teacher will print and distribute the Exit Ticket.
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
iOS Engineer
Technology | Mobile | Boston, MA, United States

We are looking for thoughtful, well-rounded iOS engineers to join our team and help build an application that millions of people use every day to discover and listen to music. You will play a leading role in our mobile engineering practice, implementing new features, improving performance, and building beautiful user interfaces. Above all, your work will impact the way the world experiences music.

What you’ll do
- Build cutting edge iOS apps that bring the joy of music to millions of users
- Collaborate closely with other engineers
- Write clear, maintainable code that will scale across a number of projects and distributed development teams
- Become a valued member of an autonomous, cross-functional team
- Work from our awesome office in Boston - we offer relocation packages if you do not currently live Beantown

Who you are
- You know how to write readable, idiomatic Objective-C.
- You are experienced with a variety of iOS frameworks.
- You have a deep understanding of Cocoa design patterns and API design.
- You care about quality and you know what it means to ship high quality code.
- You have released at least one app on the App Store or have a project in the works that you can tell us about.
- You have at least 2-3 years of professional experience

We strongly believe that diversity of experience, perspectives, and background will lead to a better workplace for our employees and a better product for our users and our creators. This is something we value deeply and we encourage everyone to come be a part of changing the way the world listens to music.
Cover Letter Writing Practice Worksheet

What are the responsibilities of this role?

What are the hard skill requirements?

What are the soft skill requirements?

To Whom It May Concern,
Exit Ticket

In your own words, what is the purpose of a Cover Letter?
Exit Ticket *(Answer Key)*

In your own words, what is the purpose of a cover letter?

The purpose of a cover letter is for the candidate to able to further explain their qualifications and skills by giving examples and descriptions. This shows the hiring manager their soft skills.
Lesson 3: Interviewing for Jobs

Materials: Laptop and projector, W2L3 Powerpoint, Tricky Interview Questions (to print) Tricky Interview Questions Worksheet, Exit Ticket

Vocabulary: Body Language, First Impression

Lesson Duration: 60 minutes

Introduction Activity: (10 mins) W2L3 Slide 2-3
1. Teacher will ask student to think back to the previous lesson when they named qualities about themselves that were challenging.

2. Teacher explains that in this activity, they will work together to try to “spin” challenging qualities into positive qualities.

   Examples:
   ● I want to be the best at everything. (I take pride in my work)
   ● I’m have high expectations of people around me. (I want us all to succeed)
   ● I can be stubborn. (I am very confident in my ideas)
   ● I don’t always work well in groups. (I am proactive and take initiative on my own)

Input: (15 mins) W2L3 Slides 3-6
Preparation: Teacher will print out and copy sets of articles for students to work with in Jigsaw Activity. Teacher will distribute a Jigsaw Activity Worksheet to each student.

Links to Articles:
2. “Is Nonverbal Communication a Numbers Game?” (Psychology Today) [https://www.psychologytoday.com/blog/beyond-words/201109/is-nonverbal-communication-numbers-game](https://www.psychologytoday.com/blog/beyond-words/201109/is-nonverbal-communication-numbers-game)

1. Teacher will explain that an interview is a conversation between the hiring manager and the candidate. Teacher will explain that they will learn more about interviews in the activity.

2. Teacher will explain that in this activity, small groups of students (4-5 students) will read various articles. Each group will be assigned one article to read. Their task is to identify and select three to five important takeaways from the article.

3. Students will read the articles independently, and then discuss their findings with their small groups. Each group will synthesize their takeaways and decide upon three key ideas from the article.

4. Students from each group will be numbered off (Student 1, Student 2, Student 3, Student 4, etc). Teacher will ask all the Student 1, Student 2, Student 3, and Student 4 representatives to meet in another small group. Those students will then share their findings from their specific article with students from the other groups. These new groups will then synthesize their findings between articles to establish the Main Idea and three key details.

5. Teacher will bring together the entire group. Teacher will ask each group that contains representatives from each article to share their findings. Teacher will record student responses on the Student Response slide.
Teacher will print Tricky Interview Questions and Tricky Interview Question Worksheet. Teacher should read the article before the lesson.

1. Teacher will explain that during interviews, the hiring manager often asks tricky or tough questions to test the candidate.

2. The teacher will show an example of a tricky interview questions from the Reader’s Digest article, “16 of the Trickiest Job Interview Questions and How to Nail Them”. (http://www.rd.com/advice/work-career/job-interview-questions/)

3. As a class, they will analyze the question and read the articles suggestion about a smart response to the tough question.

4. After two examples, each partnership will get one of the tricky questions from the article. They will work together to come up with a smart answer to the question on the Tricky Questions Worksheet.
Reflection (5 mins) **W2L3 Slide 11**
1. Teacher will facilitate a group discussion about what students learned about how to master the interview process. [Note: Use information and follow discussion prompts from Slide 11]

Exit Ticket (5 mins)

**Preparation:** Teacher will print and distribute Exit Tickets
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Jigsaw Activity

Title of my article: ___________________________________________________

Three key details:

1.

2.

3.

The main idea of this article is

Three key details from all articles:

1.

2.

3.

The main idea of all four articles is
## Sample Tricky Interview Questions

Note: Teacher should print and cut these to distribute to students

<table>
<thead>
<tr>
<th>HOW LONG WOULD YOU STAY WITH OUR COMPANY?</th>
<th>DESCRIBE HOW YOU DO A MAJOR PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW DO YOU HANDLE STRESS?</td>
<td>WHAT WOULD YOU DO DURING YOUR FIRST 90 DAYS ON THE JOB?</td>
</tr>
<tr>
<td>WHAT PARTS OF YOUR JOB DO YOU CONSIDER MOST IMPORTANT?</td>
<td>HOW DO YOU FEEL ABOUT WORKING OVERTIME?</td>
</tr>
<tr>
<td>DESCRIBE YOUR LEADERSHIP SKILLS</td>
<td>TELL ME HOW YOU COACH AND DEVELOP TALENT</td>
</tr>
<tr>
<td>WHAT IS YOUR GREATEST ACCOMPLISHMENT?</td>
<td>DO YOU HAVE ANY QUESTIONS?</td>
</tr>
</tbody>
</table>

Tricky Interview Questions

1. What is this question really asking? Describe in your own words.

2. What is the interviewer trying to figure out by asking this question? What is the trick?

3. What is the best response to this question? Please write a response here.
Exit Ticket

In your own words, describe why body language is so important during interviews.

How early should you show up for an interview?
Exit Ticket *(Answer Key)*

In your own words, describe why body language is so important during interviews.
Body language is important because as soon as you walk through the door for the interview, you are beginning to make a first impression. Before the hiring manager even hears you speak, they see how you walk, shake hands, smile.

How early should you show up for an interview?
You should show up 15 minutes before the interview starts.
Lesson 4: The Dream Team

Materials: Laptop and projector, W2L4 Powerpoint, Animal pictures print out, *Student computers, Dream Team Packet, Exit Ticket

Vocabulary: (Review) Hard skills, Soft skills, Qualifications, Requirements, Experience

Lesson Duration: 60 minutes

Introduction Activity: (10 mins) W2L4 Slide 2
Preparation: Teacher will need to print out animal photos and hang them on four different walls in the classroom.
1. As students enter the classroom, teacher will point out the four pictures of animals hanging on the four walls of the room.

2. The teacher will explain that each animal represents a personality quality:
   - Fox (Clever, Smart)
   - Owl (Wise, Patient)
   - Shark (Strong, Intense)
   - Dog (Happy, Loyal)

3. The teacher will explain that there will be two rounds of questions. In round one, students will stand by the animal they most identify with themselves. In round two, they will stand by the animal that represents the quality they admired most in others.

4. In each round, teacher should ask a few students to share why they chose to stand in that particular spot.
Input: (10 mins) **W2L4 Slide 3**

*Teacher needs to print, staple and distribute the Dream Team Packet.*

1. Teacher will direct students to find their partners.

2. Teachers will direct partners to talk together about the qualities, qualifications, skills, and experiences that you would want the team for your hypothetical product to have.
   - What kind of education should they have?
   - What kind of work experience?
   - What kind of skills?
   - What kind of qualities?

3. Students will use the Dream Team Packet to write out your ideas.

Concept Development (30 mins) **W2L4 Slides 4-6**

1. Teacher will direct partners to choose a company that they would like to model their company after. When they have decided, they will go to the company’s LinkedIn profile.
2. They will select three employees from the company, in three different roles.

3. They will look at the employee’s profile and take note on the Dream Team Packet about their qualities, skills, experiences, and qualifications. [Follow information and discussion prompt on Slide 5]

4. Once they have completed that, they will work together to write three interview questions for their potential employees. Teacher will provide an example [Note: Follow information and discussion prompts on Slide 6].

Reflection (5 mins) W2L4 Slide 7
1. Teacher will facilitate a group discussion about what students felt were the most important qualities, skills and experience they would want in an employee. [Note: Use information and follow discussion prompts from Slide 7]
Preparation: Teacher will print and distribute Exit Tickets.
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
# Dream Team Packet

1. What are the qualities, skills, and experiences you want in an employee?

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Skills</th>
<th>Experiences (Education/Work)</th>
</tr>
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Employee 1:

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<tr>
<th>Qualities</th>
<th>Skills</th>
<th>Experiences (Education/Work)</th>
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2. Choose a company that you would like to model your company after. Choose three employees with different job titles from that company. (*Do not* write their name, write their job title)
Employee 2:

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<th>Qualities</th>
<th>Skills</th>
<th>Experiences (Education/Work)</th>
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Employee 3:

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<tr>
<th>Qualities</th>
<th>Skills</th>
<th>Experiences (Education/Work)</th>
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Interview Questions
1. __________________________________________________________________________
   __________________________________________________________________________
2. __________________________________________________________________________
   __________________________________________________________________________
Exit Ticket

What were the top three most important qualities you want for your team?
Exit Ticket (Answer Key)

What were the top three most important qualities you want for your team?
*Answers will vary
Lesson Five: Assessment

Materials: Large poster paper, markers, Laptop and projector, W2L5 Powerpoint, Week Two Assessment, Print out of Tricky Interview Questions

Vocabulary: Hard skills, Soft skills, Qualifications, Requirements, Experience, Body Language, First Impression

Lesson Duration: 60 minutes

Introduction Activity: Quick Review (10 minutes) W2L5 Slide 2
Preparation: Teacher will prepare large poster paper and markers for each small group.

1. After students enter the room, the teacher will explain that they will be doing a quick review activity to get them ready for the assessment.

2. Students will get into small groups (4-5) and they will have five minutes to write down as much as they can remember about what they learned this week.

3. After five minutes, each small group will share out their responses.

Input: Getting Ready for the Assessment (5 mins)
Preparation: Teacher will copy and distribute the Week Two Assessment for each student.

1. Teacher will use this time to pass out the assessment, assure that students have all the materials they need, and take any questions before students begin the assessment.
Concept Development (35 minutes) W2L5 Slide 3
Preparation: Teacher will print out and cut the Tricky Interview Questions.

1. Teacher will pass out the Week 2 Assessment.

2. First, each student will go one by one to answer one of the Tricky Interview questions from the Reader’s Digest article to the class. Each student gets 30 seconds. Teacher should print out and cut enough of the questions for every student. More than one student can answer the same question.

3. Please students to use the remaining assessment time to complete the written portion of the assessment. If students finish early, they should continue working on the logo design for their app.

Reflection (5 mins) W2L5 Slide 4
1. Teacher will facilitate a group discussion about what students learned in this week. [Note: Use information and follow discussion prompts from Slide 4]

Exit Ticket (5 mins)
*NOTE: THIS ASSESSMENT LESSON DOES NOT INCLUDE AN EXIT TICKET. TEACHER CAN DECIDE HOW BEST TO USE THE REMAINING CLASS TIME.
Week Two Assessment

1. Write action verb statements to describe these skills/experiences:

**Putting away the dishes**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

**Picking a birthday present for a friend/family member**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

2. Write a cover letter about your personal qualities and skills based on this job description for a Back End Software Engineer at Uber.

**HERE ARE THE KINDS OF SKILLS WE’RE LOOKING FOR:**

- **Fast learner.** We’re looking for software engineers who thrive on learning new technologies and don’t believe in one-size-fits-all solutions. You should be able to adapt easily to meet the needs of our massive growth and rapidly evolving business environment. You have advanced knowledge of at least one scripting language (e.g., Python or JavaScript) and knowledge of or eagerness to learn: MySQL, PostgreSQL, Redis, Kafka, and ElasticSearch.

- **Fearlessness.** You think a working proof-of-concept is the best way to make a point. You strive on proving that speed and quality are not conflicting; that you can achieve both at the same time.

- **Versatility.** In addition to having an intimate knowledge of the whole web stack, you understand how all the pieces fit together (front-end, database, network layer, etc.) and how they impact the performance of your application.

- **Strong architecture chops.** You know how to build highly scalable, robust, and fault-tolerant services that support our unique rate-of-growth requirements. You stay up-to-date with the latest architectural trends.

- **Passion.** You feel ownership over everything you ship; you’d never call code “released” until you’re confident it’s correct. You pride yourself on efficient monitoring, strong documentation, and proper test coverage.
Your cover letter:
To Whom It May Concern:
Week 3: The Next Great App Idea

Week Three Overview: In this final week, students will learn the basics of presenting a business proposal, identifying key elements of a business model, learning the craft of salesmanship, and finally, how to effectively market and explain their product to an audience. First, they will write a proposed business plan in which they identify the problem that they are attempting to alleviate with their product, as well as naming the audience, cost, functionality and platform their product will use. Next, students will learn the basics of an Elevator Pitch, workshopping and collaborating to present their product in under one minute. After, students will study exemplar presentations and presenters, using knowledge gained from examples to script out their own sales pitch. Finally, partnerships will present their app idea to the class, while their peers provide feedback.


ELD Standards:
A1: Exchanging information and ideas with others through oral collaborative discussions on a range of social and academic topics
A4. Adapting language choices to various contexts (based on task, purpose, audience, and text type)
A2: Interacting with others in written English in various communicative forms (print, communicative technology and multimedia)
B6: Reading closely literary and informational texts and viewing multimedia to determine how meaning is conveyed explicitly and implicitly through language
C9: Expressing information and ideas in formal oral presentations on academic topics
C12: Selecting and applying varied and precise vocabulary and other language resources to effectively convey ideas

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<tr>
<td>-Write a business proposal that outlines the -Problem Statement -Proposed Solution -Identified costs, audience, platform and functionality</td>
<td>-Draft an Elevator Pitch for their product -Receive feedback to revise and edit their initial Elevator Pitch -Provide feedback to peers and collaborate on an Elevator Pitch -Present an Elevator Pitch</td>
<td>-Gain ideas from watching example sales pitches -Identify the qualities of a good presenter/presentation -Demonstrate solution based language skills -Collaborate with their partner to script out their presentation</td>
<td>-Model mastery of strong presentation skills -Assess and provide feedback for their peers following a presentation rubric</td>
<td>-Model mastery of strong presentation skills -Assess and provide feedback for their peers following a presentation rubric</td>
</tr>
</tbody>
</table>
Lesson One: What’s the Problem?


Lesson Duration: 60 minutes

Introduction Activity: Guess this Business (10 mins) W3L1 Slide 2

Teacher will print and distribute the business summaries.

1. As students enter the class, the teacher will give them one of four different sample business summaries from existing and familiar companies.

2. Students will read the summary and try to figure out what company this summary is describing.

3. Around the room, there will be four posters with the name of the companies being studied:
   - Facebook
   - Google
   - Twitter
   - Uber

4. When students have decided what company their summary is describing, they will go stand by that poster.

5. The teacher will ask 1-2 students from each what details in the Executive Summary helped them to decide which company it was.
**Input: The Elements of a Business Proposal (10 mins)**  
**W3L1 Slide 3-5**

Teacher will print and distribute the Business Proposal Video Notes Guide

1. Teacher will explain that, when starting a business, you must present a business proposal to investors, who will provide money and resources to get the business started. It is the business proposal that will convince them to invest in your business. [Note: Follow information and discussion prompts from Slide 3-4]

2. Teacher will play the video, “How To Write a Business Proposal”, and students will fill out the “Business Proposal Video Notes Guide”.

3. When the video is over, the class will discuss their findings.

---

**Concept Development: Writing Your Own Business Proposal (30 mins)**  
**W3L1 Slides 6-8**

Teacher will need to print and distribute the Business Proposal Student Guide
1. The class will practice writing an example business proposal with an already existing product that they are familiar with, Instagram, a photo and video sharing social media platform.

2. Teacher will project the slide with bullet points for each critical aspect of a business proposal. As a class, they will attempt to fill in all of the elements. Here are example responses:

   - Problem Statement: There is no existing social media platform for sharing only photos and videos.
   - Functionality: Users create accounts and directly upload photos and videos. Users can follow one another, which means that whomever they follow shows up in their “News Feed”. Users can “like” and comment on each others photos. Users can send direct messages and “tag” other users in photos.
   - Audience: Though Instagram is used by customers of all ages, ethnicities, genders and nationalities, the target market is customers ages 13-35. Users must have smartphones.
   - Costs: It is free for the customer to download and use.
   - Personnel: Developer, design team, UX, marketing team, customer service, management
   - Expected Results: Due to popularity, Instagram will likely be bought by a well established company, like Facebook, making the company money. Also, advertisers can pay to have ad space. By September 2015, there will be 400 million users worldwide.

3. Students will have the remainder of the class to both outline their business proposal and create a visual representation of their business proposal that will be displayed during their presentations.

4. Teacher will explain that because this exercise is purely hypothetical, and the students have not in fact done extensive market research to establish actual costs and projected results, they may fabricate numbers for the purpose of the assignment. However, teacher should direct students to make educated and reasonable estimates for these elements.
Reflection (5 mins) **W3L1 Slide 9**
1. Teacher will facilitate a group discussion about the triumphs and challenges the class experienced as they wrote their business proposals. [Note: Use information and follow discussion prompts from Slide *]

Exit Ticket (5 mins)
*Preparation: Teacher needs to print and distribute Exit Ticket.*
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
This product is free to the user. It is the most widely used social media platform throughout the world. Users post updates, either written or pictures, and share content with their friends. User profiles are often linked to other social media platforms. There are sponsored ads which make revenue for the company.

With this product, the user has access to a search engine for the internet. Furthermore, this company has a variety of specific applications, including email, maps, presentation tools, translation, and financial services. Users can create a free account to access these various applications. The company makes money through advertisers, business licences, as well as hardware, like brand specific computers and mobile phones.

This is a social media platform. Users share thoughts and ideas with limited maximum words per post. This product is free for the users to download and make an account. Users follow one another, and can like, comment, and share one another’s posts. The company makes money through advertisements and business licences. The appeal of this social media platform over others is the element of being connected to well known public figures.

This app provides a car and ride sharing service to its users. It is free for users to make an account, but they must pay for each ride. Users request a car to a specific location and asked to be dropped off at a specific location through the app. Users can take rides by themselves or can share cars with other users to split costs.
## Business Proposal Video Notes Guide

<table>
<thead>
<tr>
<th>Element of a Business Proposal</th>
<th>Purpose and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
</tbody>
</table>
## Business Proposal Video Notes Guide (Answer Key)

<table>
<thead>
<tr>
<th>Element of a Business Proposal</th>
<th>Purpose and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Executive Summary</strong></td>
<td>Overview of the Business Proposal, including a brief summary of all the elements</td>
</tr>
<tr>
<td><strong>2. Business Details</strong></td>
<td>What is your product or service? What does it do? What problem is it solving? What is the purpose?</td>
</tr>
<tr>
<td><strong>3. Marketing and Sales Strategy</strong></td>
<td>Describing the target audience, the market, how you will sell the product/service.</td>
</tr>
<tr>
<td><strong>4. Management Team and Personnel</strong></td>
<td>Who will be in charge of the business, what team members will you need to both build and maintain the product or service</td>
</tr>
<tr>
<td><strong>5. Setup</strong></td>
<td>Where is your business located, how will you deliver the product or service to the customer?</td>
</tr>
<tr>
<td><strong>6. Financial Plan and Projections</strong></td>
<td>How much will it cost to make your product or service? How much money will it make and in how much time will it make it?</td>
</tr>
</tbody>
</table>
CHECKLIST: Business Proposal Checklist (we will only be doing FOUR elements)

Use this checklist to keep track of progress when compiling your business proposal.

<table>
<thead>
<tr>
<th>1. Executive Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of Business Proposal, Problem/Solution Statements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/Service Details: Functionality; What does this product/service do?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Sales and Marketing Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target market: Audience; Who will use this product?</td>
</tr>
<tr>
<td>Pricing strategy: How much will this cost for the customer? Why is this the best strategy for your target audience?</td>
</tr>
<tr>
<td>Expected Results: How much money will you make in what amount of time?</td>
</tr>
<tr>
<td>Budget and timeline: How much will it cost to make this product and how long will it take to make?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff requirements: Who will need to be on the team to make this product/service happen?</td>
</tr>
</tbody>
</table>

Directions:

1. With your partner, take notes on each of the four sections in the Business Model Chart on the following page.
2. After you have your ideas recorded, please bring them to me to conference.
3. You will need to get large poster paper and markers. You will be making a visual representation of your business proposal to display behind you during your presentations. There is no “right” way to do this, but the representation should include all the necessary elements of a business proposal.
4. Tip: this visual representation will help you during your proposal, so think about what you need to include so it will be a helpful resource!
## Business Proposal Chart

<table>
<thead>
<tr>
<th>1. Executive Summary (Overview of Business Proposal, Problem/Solution Statement)</th>
<th>2. Introduction (Functionality and Business Details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Sales and Marketing Strategy (Audience, Costs, Expected Results)</td>
<td>4. Personnel (Staff)</td>
</tr>
</tbody>
</table>
Exit Ticket

Directions: Write the word underneath its definition.

1. Someone who provides money to entrepreneurs so they can start their business

2. The initial money and resources to start a business

3. An overview of a business

In your own words, describe the purpose of writing a Business Proposal. Why is it important?
Exit Ticket (ANSWER KEY)

Directions: Write the word underneath its definition.

1. Someone who provides money to entrepreneurs so they can start their business
   Investor

2. The initial money and resources to start a business
   Capital

3. An overview of a business
   Executive Summary

In your own words, describe the purpose of writing a Business Proposal. Why is it important?  
A Business Proposal tells investors what your product is, how you plan to create it, and how you plan to make money from it. If you do a quality Business Proposal, you will convince investors to put money into your company, so you can get your business going.
Lesson Two: The Shark Tank

Materials: Laptop and projector, W3L2 Powerpoint, Elevator Pitch Video Guide

Vocabulary: Elevator Pitch, Sales Pitch

Lesson Duration: 60 minutes

Introduction Activity: Your Life’s Story (10 mins) **W3L3 Slide 2**

1. After students enter the classroom, teacher will round them for an introduction activity. [Note: Use information and follow discussion prompts from Slide 2]

2. In this activity, students will need to find a partner and decide who will be Partner A and Partner B.

3. Partner A will go first. They will have 1 minute to tell their life story. Teacher should direct students to start from when they were born and try to include all of the important moments of your life you can in the time you have.

4. Partner B will do the same thing, speaking for 1 minute.

5. Switch partners. Repeat activity.

6. Teacher will engage students in a turn and talk reflection about the challenges of this activity and what they learned from this activity.

---

**Your Life’s Story**

1. Find a partner. Decide who will be Partner A and Partner B.
2. Partner A will go first. You have 1 minute to tell their life story. Start from when you were born and try to include all of the important moments of your life you can in the time you have.
3. Partner B will do the same thing, speaking for 1 minute.
4. Switch partners. Repeat activity.

TT: What was challenging about that exercise? Was the second round easier? Why or why not?

---

**Input:** The Elevator Pitch (10 mins) **W3L3 Slide 3-5**

*Teacher will need to print and distribute the Elevator Pitch Video Guide.*
1. Teacher will teach the elements of an effective elevator pitch. [Note: Use information and follow discussion prompts from Slide 3-4]

2. Teacher will play “Shark Tank: Tips to Perfect Your Elevator Pitch” video. During the video, students will follow the Elevator Pitch Video Guide.

3. After the video, students will discuss the elements of the two elevator pitches that they felt were successful and improvements they could suggest. [Note: Use information and follow discussion prompts from Slide 5]

**Concept Development: The Shark Tank (30 mins) W3L3 Slide 6-7**

1. Teacher will explain that partnerships will have the opportunity to present an elevator pitch to a small group. Each group gets 30 seconds. Teacher should allow students time to brainstorm and rehearse for the elevator pitch. [Note: Use information and follow discussion prompts from Slide 6]

2. Teacher puts students into small groups (4 students, 2 partnerships).
3. One partnership will present their elevator pitch. Teacher will alert students when their 30 seconds is over. Their peers will offer feedback for improvements. Teacher will ask the second partner group to present, and when they are finished, their peers will offer feedback.

4. When every partnership has presented and received initial feedback, they will have time to rework and revise their elevator pitch based on the feedback. [Note: Use information and follow discussion prompts from Slide 7]

5. Small groups will present their revised elevator pitch to the whole group. Each group has 30 seconds to present.

Reflection (5 mins)
1. Teacher will facilitate a group discussion about  [Note: Use information and follow discussion prompts from Slide 8]

Exit Ticket (5 mins)
*Teacher will need to print and distribute the Exit Ticket.*
1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Elevator Pitch Video Notes

What were the three elements the presenter named that need to be included in an effective elevator pitch?

1. 
2. 
3. 

What did the first entrepreneur do well? What could she have improved on?

What did the second entrepreneur do well? What could he have improved on?
Exit Ticket

What were the three elements to an effective elevator pitch that was said in the video?
Exit Ticket (Answer Key)

What were the three elements to an effective elevator pitch that was said in the video?

In the video, it was said that the three elements to an effective elevator pitch are

1. Make an impact—get the audience’s attention right away
2. Tell a story—make the audience care about what you’re talking about
3. Do your research—have the answers to the questions they will ask
Lesson Three: It’s Not What You Say, It’s How You Say It

Materials: Laptop and projector, W3L3 Powerpoint, Solutions-based Language Worksheet, Quality Salesperson Video Notes

Vocabulary: Solutions-based language

Lesson Duration: 60 minutes

Introduction Activity: “Sell Me This Pen” (10 mins) W2L3 Slide 2-12

1. After students enter the classroom, the teacher will explain that during this introductory activity, they will be rotating partners to complete salesmanship tasks. Teacher will explain that salesmanship is the ability to sell people on ideas or products, and is achieved through convincing arguments language.

2. The teacher will explain in each round, students will attempt to sell their partner on a product or idea that is not a traditionally easy product to sell. Teacher will play the “Sell Me This Pen” clip from “The Wolf of Wall Street”.

3. Students will partner up. One student will be Student A and one student will be Student B. Student A will begin by having 30 seconds to attempt to sell Student B on a product or idea.
After 30 seconds, Student B will offer Student A feedback about what was effective about their sales pitch and what suggestions they may have. Then, it will be Student B’s turn to attempt to sell a different product or idea, and Student A will give feedback. [Note: Use information and follow discussion prompts from Slide 3-13]

4. Switch partners and complete another round. [*Note: the powerpoint slides have enough product/idea options to complete five rounds. Teacher should facilitate as many rounds as time allows]
Input: Can’t Say Yes, Can’t Say No (15 mins) W2L3 Slide 13-14

Teacher will need print and distribute the Solutions Based Language Worksheet

1. Teacher will explain that in the activity, they will be working in partners. Teacher will explain the task. In the task, the students will be given a series of requests. The challenge in the tasks is that the students can’t answer “yes” or “no” to the requests, but must come up with a solution that makes the person satisfied.

2. Teacher will model the task, showing how to come up with a solution to the request that is not “yes” or “no”. Teacher will be explicit about modeling their thinking, noting the specific choices they made based off of the person’s request when they came up with the solution.

   [Note: Use information and follow discussion prompts from Slide 14-15]

   The example the teacher will model is someone asking “Can we go to McDonalds?” In the modeling, the teacher could point out to students that, when thinking about the request, they are noticing that perhaps the person does not want to spend a lot of money which is why they are asking for fast food. Teacher will explain that they will use that information to offer an alternative solution that is also affordable, which is likely to make the person happy.

3. Teacher will explain that solution-based language is an essential skill for business ventures.

4. Partners will work together to complete the Solutions-Based Language Worksheet.

5. Each partnership will share one example solution they gave and explain why they offered that solution using evidence from the person’s request.

Concept Development: Qualities of a Good Presenter (30 mins) W2L3 Slide 15
Teacher will need print and distribute the “Top 3 Qualities of the Most Successful Sales Professional” Video Note Guide

1. Teacher will play video “Top 3 Qualities of the Most Successful Sales Professional” and students will take notes on the “Top 3 Qualities of the Most Successful Sales Professional” Video Note Guide.

2. Teacher will facilitate discussion about salient features of exemplar salesmanship students picked up on. [Note: Use information and follow discussion prompts from Slide 15]

3. Partnerships will have work time to script out their presentation and work on their App Logo Design.

Reflection (5 mins) W2L3 Slide 16

1. Teacher will facilitate a group discussion about  [Note: Use information and follow discussion prompts from Slide 16]

Exit Ticket (5 mins)

Teacher will need to print and distribute the Exit Ticket.

1. Teacher will distribute the Exit Ticket and collect them at the end of class.
Solutions Based Language

1. I’m hungry. Can we go out to eat at McDonald’s?
   Solution:

   Why did you provide this solution?

2. This TV show is boring. Can we watch something else?
   Solution:

   Why did you provide this solution?

3. I’m too hot. Can we turn on the air conditioner?
   Solution:

   Why did you provide this solution?

4. Our house is looking dirty. Can we paint it yellow?
   Solution:

   Why did you provide this solution?

5. I’m feeling really lucky today. Can you buy me a lottery ticket?
   Solution:

   Why did you provide this solution?
# Qualities of a Salesperson

<table>
<thead>
<tr>
<th>Quality 1:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Why it’s important?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality 2:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Why it’s important?</td>
</tr>
<tr>
<td>Quality 3:</td>
<td>Description:</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td>Why it’s important?</td>
</tr>
</tbody>
</table>
Exit Ticket

What does it mean to use solutions-based language?

What are the top 3 qualities of a salesperson?
Exit Ticket (Answer Key)

What does it mean to use solutions-based language?

Solutions-based language means that you try to find solutions to problems that are based in evidence. Solutions-based language means that you think of the best alternatives through thinking critically.

What are the top 3 qualities of a salesperson?

1. Ambition
2. Overcome Fears
3. Make Total Commitment to Success
Lesson Four: Presentations

Materials: Laptop and projector, W3L4 Powerpoint, Peer Rubric Form, Teacher Rubric Form


Lesson Duration: 60 minutes

Introduction Activity: Practice Time for Presentations/Setting Up (6 mins) W3L4 Slide 2
Teacher will need to print and distribute Peer Rubric Forms and Teacher Rubric Forms
1. Teacher directs the students who are presenting that day to find their presentation partner and rehearse for their presentation.

2. Teacher directs students to take 5-6 Peer Rubric Forms (5 for students who are presenting that day, 6 for those who are not) and filling out the Peer Rubric Form with:
   - Their name
   - Date
   - The names of partnerships who will be presenting that day on each separate sheet

Input: Explaining the Peer Rubric (5 mins) W3L4 Slide 3
1. Teacher will explain how students should use the Peer Rubric to assess and offer feedback to their classmates.

2. Teacher will explain that for each element of a good presentation that is evident in their peer’s presentation, they will write a check mark next to that section. At the end, peers will offer one STAR and one WISH to the presenters. A STAR is something the presenters did exceptionally well. A WISH is an area they could have improved upon or added to.

3. Teacher will take questions about the rubric before presentations begin to make sure that all students are clear on how to use it correctly.

![The Peer Rubric](image)

**Concept Development (40 mins) W3L4 Slide 4**

*Preparation: Each partnership needs to hang up both their visual representation and logo design, so teacher will need to provide tape or magnet clips.*

[Note: Depending on the size of the class, the ratio of presentation time versus oral feedback time might vary slightly to accommodate the time constraint. This time frame is meant to accommodate six 4 minute presentations with 2 minutes of feedback time per lesson, and six minutes of extra time for transitions.]

1. All audience members have the rubrics for each presentation partnership in front of them.

2. Teacher calls up presenter partnerships one at a time to present. Each partnership has four minutes to present.

3. Audience members have two minutes to give feedback and ask questions.

4. Repeat for all six presentations.
Reflection (5 mins)  **W3L4 Slide 5**

1. Teacher facilitates discussion to reflect on being a presenter and an audience member.  
   [Note: Follow information and prompts from Slide 5]

Exit Ticket (5 mins)

1. NOTE: THIS LESSON DOES NOT HAVE AN EXIT TICKET. TEACHER WILL COLLECT PEER RUBRIC BEFORE STUDENTS LEAVE CLASS.
### Peer Rubric

<table>
<thead>
<tr>
<th>Business Proposal Elements</th>
<th>Directions: Put a check if you see evidence of these elements in the presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td></td>
</tr>
<tr>
<td>Problem Statement</td>
<td></td>
</tr>
<tr>
<td>Functionality</td>
<td></td>
</tr>
<tr>
<td>Audience</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
</tr>
<tr>
<td>Expected Results</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualities of a Salesperson</th>
<th>Directions: Put a check if you see evidence of these elements in the presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make an Impact</td>
<td></td>
</tr>
<tr>
<td>Clear Research/ Information</td>
<td></td>
</tr>
<tr>
<td>Tells a Story</td>
<td></td>
</tr>
<tr>
<td>Commitment to Success</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visual Representation</th>
<th>Directions: Put a check if you see evidence of these elements in the presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear, neat, logical visuals</td>
<td></td>
</tr>
</tbody>
</table>

Presenters Names: ______________________
## Teacher Rubric

**Directions:** Put a score of 1-4 for each element. Write comments.

<table>
<thead>
<tr>
<th>Business Proposal Elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
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<td>Costs</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
</tr>
<tr>
<td>Expected Results</td>
<td></td>
</tr>
</tbody>
</table>

Section Total: ____/24

<table>
<thead>
<tr>
<th>Qualities of a Salesperson</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Make an Impact</td>
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</tr>
<tr>
<td>Clear Research/ Information</td>
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<td>Tells a Story</td>
<td></td>
</tr>
<tr>
<td>Commitment to Success</td>
<td></td>
</tr>
</tbody>
</table>

Section Total: ____/16

<table>
<thead>
<tr>
<th>Visual Representation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear, neat, logical visuals</td>
<td></td>
</tr>
</tbody>
</table>

Section Total: ____/4

4: 85-100%
3: 70-84%
2: 54-69%
1: 54% and below

37-44 total points
30-36 total points
24-35 total points
24 points and below

**Lesson Five: Presentations**
Materials: Laptop and projector, W3L5 Powerpoint, Peer Rubric Form, Teacher Rubric Form


Lesson Duration: 60 minutes

Introduction Activity: Practice Time for Presentations/Setting Up (5 mins) W3L5 Slide 2
Teacher will print and distribute Peer Rubric Forms and Teacher Rubric Form.
1. Teacher directs the students who are presenting that day to find their presentation partner and rehearse for their presentation.

2. Teacher directs students to take 5-6 Peer Rubric Forms (5 for students who are presenting that day, 6 for those who are not) and filling out the Peer Rubric Form with:
   - Their name
   - Date
   - The names of partnerships who will be presenting that day on each separate sheet

Input: Explaining the Peer Rubric (5 mins) W3L5 Slide 3
1. Teacher will explain how students should use the Peer Rubric to assess and offer feedback to their classmates.
2. Teacher will explain that for each element of a good presentation that is evident in their peer’s presentation, they will write a check mark next to that section. At the end, peers will offer one STAR and one WISH to the presenters. A STAR is something the presenters did exceptionally well. A WISH is an area they could have improved upon or added to.

3. Teacher will take questions about the rubric before presentations begin to make sure that all students are clear on how to use it correctly.

![The Peer Rubric](image)

**Concept Development (40 mins) W3L5 Slide 4**

*Preparation: Each partnership needs to hang up both their visual representation and logo design, so teacher will need to provide tape or magnet clips.*

[Note: Depending on the size of the class, the ratio of presentation time versus oral feedback time might vary slightly to accommodate the time constraint. This time frame is meant to accommodate six 4 minute presentations with 2 minutes of feedback time per lesson, and six minutes of extra time for transitions.]

1. All audience members have the rubrics for each presentation partnership in front of them.

2. Teacher calls up presenter partnerships one at a time to present. Each partnership has four minutes to present.

3. Audience members have two minutes to give feedback and ask questions.

4. Repeat for all six presentations.
Reflection (5 mins) W3L5 Slide 5

1. Teacher facilitates discussion to reflect on being a presenter and an audience member.
   [Note: Follow information and prompts from Slide 5]

Exit Ticket (5 mins)

*Teacher will need to print and distribute Student Exit Surveys*

1. Teacher will collect the Peer Rubrics at the end of class. Students will complete short unit survey before exiting the class.
### Peer Rubric

<table>
<thead>
<tr>
<th>Business Proposal Elements</th>
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</thead>
<tbody>
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<td>Executive Summary</td>
<td></td>
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<tr>
<td>Personnel</td>
<td></td>
</tr>
<tr>
<td>Expected Results</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualities of a Salesperson</th>
<th>Directions: Put a check if you see evidence of these elements in the presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make an Impact</td>
<td></td>
</tr>
<tr>
<td>Clear Research/ Information</td>
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<table>
<thead>
<tr>
<th>Visual Representation</th>
<th>Directions: Put a check if you see evidence of these elements in the presentation</th>
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<tbody>
<tr>
<td>Clear, neat, logical visuals</td>
<td></td>
</tr>
</tbody>
</table>

Presenters Names: __________________
## Teacher Rubric

4- Exceeds Standard, 3-Meets Standard, 2- Approaching Standard, 1- Needs Improvement

<table>
<thead>
<tr>
<th>Business Proposal Elements</th>
<th>Directions: Put a score of 1-4 for each element. Write comments.</th>
</tr>
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<tr>
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Section Total: ____/24

<table>
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Section Total: ____/16

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Section Total: ____/4

4: 85-100%
3: 70-84%
2: 54-69%
1: 54% and below

4: 37-44 total points
3: 30-36 total points
2: 24-35 total points
1: 24 points and below

Name__________________________
Date__________________________
Exit Survey

1. What was the most useful thing you learned in this unit?

2. What was the most interesting part of the unit?

3. What was something you wish was covered in this unit, but wasn’t?
Image Sources

San Francisco Skyline Outline: http://www.houzz.com/photos/8336406/San-Francisco-Skyline-Silhouette-Wall-Decal-modern-wall-decals
San Francisco Tech Map: https://b.fastcompany.net/multisite_files/fastcompany/imagecache/inline-large/inline/2015/09/3051574-inline-i-3-has-the-tech-industry-made-san-francisco-unlivable-for-everyone-else.jpg
Code Facts: http://www.code.org
CodeWalker Academy screenshots: http://www.codewalker.org
Venmo screenshots: personal venmo account
Sample Resume: personal resume
Linkedin screenshots: personal linkedin account
Question mark image: http://www.publicdomainpictures.net/hledej.php?hleda=question+mark
Tricky interview question images: http://www.rd.com/advice/work-career/job-interview-questions/
AltSchool Linkedin screenshot: https://www.linkedin.com/company/altschool
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Shark Tank image: https://vimeo.com/183601728
Yes image: https://www.flickr.com/photos/ttrimm/5351309838
Fox image: https://en.wikipedia.org/wiki/Red_fox
Owl image: https://en.wikipedia.org/wiki/Owl