

FINDING TIME FOR WORK-BASED LEARNING: Work-Based Learning and the Master Schedule

(A work in progress)

One of the essential components of both Linked Learning pathways and College and Career Academies is work-based learning. Master Schedules need to be designed and bell schedules need to be chosen so as to optimize work-based learning opportunities for all students. For example, Kearny Construction Tech Academy takes advantage of the 4x4 block and longer class periods to schedule work-based learning opportunities at times that align with placements at industry sites. In addition, since students can earn eight credits each year, they typically have time for student internships during their senior year.

When academies/pathways are “purely” scheduled with students cohorted together in a “block” of academy/pathway grade-level courses, teachers can readily create flexible use of time that allows for job shadowing, mentoring (or e-mentoring), collaboration with industry consultants, and career-related field work to be embedded within the pathway program of study.

From the Essential Elements of Quality Linked Learning Pathways:

Work-Based Learning

“All students participate in a personalized and coordinated continuum of work-based learning (WBL) experiences designed to help them master and demonstrate academic, technical, and 21st Century skills, as identified in the pathway student learning outcomes. WBL builds on and extends every pathway’s program of study. WBL occurs in person and online: in the work place, the community, and at school. Students acquire academic, technical, and 21st Century knowledge and skills through WBL, all of which enhance their preparedness for the demands of college and careers.”

“Without application, principles and ideals have no bearing and no test.” – John Dewey

“In today’s economy, students have to start building their careers in high school in order to better compete in the college admissions process, for college internships and eventually full-time jobs. Employers who offer high school internships will build brand awareness early, fill up their talent pipelines and be able to remain competitive in their marketplace.” – Dan Schawbel, Promote Yourself: The New Rules for Career Success

“High school internships are a win-win for both employers and students. For students, work experience is the key to ensure they make a good career decision and build their professional network. By employing students, companies get exposure to talent early in their career journey and help support the well being of the local community.” – Robin D. Richards, Internships.com

City Arts and Technology High School (CAT)

an Envision High School (charter school in Envision network)

San Francisco, California

Envision schools place a strong emphasis on quality work-based learning experiences. One Envision school, City Arts and Technology High School, describes the WBL experience of 11th and 12th graders as follows: “In 11th/12th grade, all students participate in the Workplace Learning Experience, or WLE. One day a week for three months, instead of coming to school, they go to an internship site for the entire day. To secure the internship, students write resumes, cover letters and practice interview skills. We encourage them to seek an internship in a field of interest, and the WLE helps many students identify their ideal career (or one they don’t want!) During the internships, students work with a mentor and complete a project with measurable outcomes. At the end of the three months, they present their experience in a public exhibition. It’s a powerful experience that equips students with job search practice, self-confidence and first-hand exposure to a career field.”

NOTE: While teachers do visit students at the worksite and help to monitor each student’s work-based learning plan, 11th and 12th grade teachers also have time for additional faculty collaboration on the WBL days for the three month period involved.

Download Stanford Center for Opportunity Policy in Education (SCOPE) Case Study on City Arts and Technology High School (CAT) AND view Alliance for Excellent Education Video on “What does deeper learning look like.” See CAT case study and video links at:

<https://edpolicy.stanford.edu/publications/pubs/1175>

Digital Safari Academy

Mount Diablo High School

Mount Diablo Unified School District

Concord, California

At Digital Safari Academy, all students participate in workbased learning experiences. Many of the interdisciplinary student projects involve work with industry consultants and presentations to industry partners. One of the major senior projects engages students in “a real enterprise” that involves business plans, products, marketing, and exhibition of the student work to a panel of employers and community partners.

In addition, Digital Safari was one of four academies selected to participate in a national Career Academies Project to strengthen work-based learning and college readiness. This initiative was funded by the U.S. Department of Education and coordinated by staff from MDRC. The goal was to develop the capacity of academies to offer quality work-based learning and college readiness experiences to all students. The program involved a continuum of college and career exploration experiences and a summer internship program for participating seniors. The lead teachers and a long-time business partner worked together to coordinate the Summer Internship program. As part of the internship program, there were also embedded projects and concurrent weekly seminars.

The resulting ECCCO (Exploring College, Career curriculum is currently being used in several of the Linked Learning districts in California. See more information and a video on the ECCCO curriculum in Oakland Unified School District at <https://www.connectedstudios.org/ecco>

**Health Career Academy
Palmdale High School**

Antelope Valley Union High School District, Palmdale, California

At Palmdale High School, students in the Health Academy have opportunities for work-based learning opportunities that are closely aligned with course content and involve clinical placements during the school day. The Health Occupations course is held every Monday, Wednesday, and Friday from approximately 1:30 – 3:30 p.m. Each student is certified in First Aid and CPR. On Tuesdays and Thursdays of each week, junior and senior Health Careers students rotate through a series of medically-related placements at local hospitals and doctor offices around Antelope Valley for an 1 ½ hours – 2 hours each day. Students also have opportunities for summer internships.

See ConnectEd California video on Work-based Learning: Palmdale High School

<https://www.youtube.com/watch?v=jcuBiSxmR60>

<http://www.connectedcalifornia.org/toolkits>

Life Academy of Health and Bioscience

Oakland Unified School District, Oakland, California

At Life Academy of Health and Bioscience in Oakland, all students participate in internships in the health or bioscience fields. Typically, each junior and senior attends her/his internship placement two afternoons each week between October and April. Teachers at Life Academy both help prepare and orientate students for their internships and then build upon the internships in the school’s curriculum. According to Life Academy, the primary goals of the internship are “to help students to gain the skills to create a vision for themselves in the field of healthcare, identify and understand health career options, practice professional skills, and serve their community.”

In addition, each student-intern designs a research project that can be investigated at her/his internship placement. Students then develop and present exhibitions of learning or a senior defense in which they formally share their research projects with a panel that includes teachers and industry partners.

Download Stanford Center for Opportunity Policy in Education (SCOPE) Case Study on Life Academy of Health and Bioscience AND view a ConnectEd California video on Life Academy of Health and Bioscience. See Life Academy case study and video links at:

<https://edpolicy.stanford.edu/publications/pubs/1175>

Kearny Construction Tech Academy (CTA)

Kearny High School Complex

San Diego Unified School District, San Diego, California

Architecture, engineering, and construction professionals serve as consultants on student projects and provide authentic assessments for student work. For example, ninth grade CTA students visit nearby Legoland while it is closed to the public and , with support from industry professionals, design their own amusement park project. They develop site plans, scale

drawings, and other aspects of project design. Student teams present their final amusement park designs to industry professionals.

The 4x4 block scheduling at Kearny allows CTA to both accommodate opportunities for work-based learning and concurrent enrollment in local college and trade programs. Since students can take up to eight courses each year, most students have more time in 12th grade to accommodate internships.

At Kearny, teachers work with students to develop personalized learning plans that connect work-based learning experiences with the pathway curriculum.

Dozier-Libby Medical High School (DLMHS)

Antioch Unified School District, Antioch, California

At Dozier-Libby Medical High School in Antioch, California, many aspects of work-based learning are embedded in the curriculum. Students also have opportunities for internships; however, there is an interview and selection process for the hospital-based internship placements. In addition, there are both school-wide and grade-level-specific opportunities to learn about careers in the health field. One example of a school-wide learning opportunity is the C3 day (Career, College, and Community Day). This occurs every other year and involves suspending regular school for the day. Instead, students learn from presentations involving over 100 health-careers speakers and/or college representatives (including college students in health-related majors).

A Kaiser medical facility is adjacent to the Dozier-Libby campus and students are able to job shadow in various medical departments as part of their high school learning experience. Health Science 10, for example, involves medical human resource professionals working with students on resume writing and development and conducting 10-minute mock interviews with each student. 10th graders also participate in a 2-week e-mentor project that matches each student with a medical professional. And there are scheduled small group visits to a variety of hospital departments.

As part of Health Science 11, students are engaged in curriculum and assessments related to work-ready skills and the National Health Standards. Eleventh graders also are enrolled in physiology and there is direct interplay between the medical terminology they are learning in their Health Science class and applications in the Physiology class. If students successfully pass Health Science 11 with a B or higher, they earn community college credit for the medical terminology component. 11th grade also includes a field trip to University of California Davis Medical Center.

12th grade Medical Ethics includes the option of participating in a half-day job shadow or 8-week internship at a local hospital or medical facility.

Download Stanford Center for Opportunity Policy in Education (SCOPE) Case Study on Dozier-Libby Medical High School AND view ConnectEd California Video on “Linked Learning and Design Thinking.” See DLMHS case study and video links at:

<https://edpolicy.stanford.edu/publications/pubs/1175>

High Tech High

(Charter School, original high school in the High Tech network of schools)
San Diego, California

At High Tech High in San Diego, all or almost all students participate in an internship and while there is no work-based learning coordinator, teachers and advisors do help students find internship placements. Typically, each junior spends approximately a month in a workplace internship. Each student has a student learning plan and weekly assignments. Students are expected to complete both a journal and a photo essay about their internship experience and learning. Teachers visit the workplace and help students make connections to curriculum.

From the High Tech High website: “Through the Academic Internship Program, HTH students have completed more than 1000 internships in over 300 community businesses and agencies, including the SPAWAR Systems Center, Qualcomm, FOX 6 News, San Diego Magazine, General Atomics, The San Diego Oceans Foundation, The San Diego Children’s Museum, and the VA Hospital.”

On the final day of their internship experience, each student-intern presents her/his internship project to a panel of teachers, employers, family, and friends. Students are expected to include digital artifacts to demonstrate their process and products. In addition, students are expected to “reflect on and describe what (they) learned” through their mentor interview.

One of the design principles at High Tech High is adult world connection. According to the school website, “HTH students connect their studies to the world beyond school through field studies, community service, internships, and consultation with outside experts. Students routinely create work for authentic audiences and exhibit that work in professional venues. All high school students complete substantial internships in the world of work and service, where they develop projects that contribute to the workplace. The HTH facilities themselves have a distinctive “workplace” feel, with windowed seminar rooms, small group learning and project areas, laboratories equipped with the latest technology, ubiquitous wireless access, and common areas where artwork and prototypes are displayed.”

One of the featured publications on the High Tech High website is Ampersand. Ampersand is the annual student journal of school and work. In January 2010, the student internship program was described thusly: “HTHMA juniors left the traditional school structure and became interns in the working world of San Diego. These students took on professional roles and identities as they developed software, wrote for local news organizations, conducted chemical and biological research, developed marketing plans, and more. In Ampersand, these (50) students share their reflections on life, work, education, and the world beyond high school...”

<https://sites.google.com/a/hightechhigh.org/ampersand/>

NOTE: A new edition (volume 6) of Ampersand will be published in Spring 2014.

Video: Adult-World Connections: An Internship with Real Impact for Rescuers
<http://www.edutopia.org/high-tech-high-internship-video>

Video: The DNA of Learning: Teens Tackle Animal Poaching Through Genetics
<http://www.edutopia.org/high-tech-high-biotech-video>

Big Picture Learning Schools

The Met Center (Metropolitan Regional Career and Technical Center) of Providence and Newport, Rhode Island

State-funded public school district

Serves 690 high school students in six small schools across three campuses

Note: There are 44 Big Picture schools in the United States, 25 in Australia, 27 in Israel, 13 in the Netherlands, and 1 in Canada.

In California alone, there are 9 Big Picture schools, including 3 in Los Angeles, and one each in Fresno, Oakland, Sacramento, El Dorado, San Diego, and Santa Monica.

Big Picture Schools emphasize learning in the real world or Learning Through Internships/Interest (LTI). Typically, in a Big Picture school, the LTI is seen as a primary aspect of a student's education. Typically, each student spends two days a week in an internship placement. As part of her/his internship, each student works with an expert-mentor and completes a project that benefits both student learning and the host workplace. Teachers are involved in helping students develop individualized internship learning plans that are tied to standards and academic and career-technical growth. Big Picture suggests the following as a rationale for spending so much time connecting students to work-based learning and professional adult mentors: Students learn how to be adults by being with adults, expertise is out in the real world, and guidance is invaluable. To see a short video of a student discussing her internship experience as well as the Big Picture list of essential elements of learning in the real world, please see: <http://www.bigpicture.org/2008/11/learning-in-the-real-world-lti/>

Build San Francisco, San Francisco, California

Begun as an after school program sponsored by the Architectural Foundation of San Francisco and then as a six-week summer mentorship experience, the Build San Francisco Institute has evolved into a full partnership with the San Francisco Unified School District as an integral part of the city's public high school program.

"The Build San Francisco Institute offers fully accredited courses in Architectural Design and Urban Studies. Students work on real problems using the real tools professionals use, including such state of the art software programs as Autodesk 3DS Max and Autodesk Revit Architecture. In addition, it provides every student who joins the program with a mentorship with a major San Francisco architecture, engineering, construction or interior design firm and key civic agencies. Students may earn up to fifteen units of high school credit each semester. All credits

earned appear on the students high school transcript and are approved by the University of California for college admission.” Video: Build San Francisco Institute
<http://www.connectedcalifornia.org/toolkits> Engaged Learning Workbased Learning

School Based Enterprise: At many high schools, students are involved in running either a store or a café as part of their program of study. Often these stores or cafes are closely associated with either Hospitality and Tourism pathways or Business and Entrepreneurship pathway. At a hospitality academy at Mount Diablo High School in Concord, California, students help to run both the Serendipity Café that is open to the public for lunch and an associated catering business. Examples of high schools with school-based enterprises include, among many others, DuPont High School in Delaware, Apex High School in North Carolina, and Dominion High School in Virginia. In addition, enterprise programs such as Richmond Youth Media expand learning (and earning) opportunities for students in the Media Academy at Richmond High School, in Richmond/California/West Contra Costa Unified School District.

Still other schools are involved in **Social Enterprise** for Learning and engage in projects such as the Y-Plan which involve high school students working with urban planning professionals to learn urban planning skills and applying their knowledge in addressing a real community need with a real community client.

Many of the best Senior Project designs involve either extended work-based or community-based learning and/or service projects as well as work with adult consultants and authentic assessment of both student process and product work.

The National Academy Foundation, the Linked Learning initiative, and College and Career Academies around the country consider internships to be an essential component of student learning. Typically, students participate in a continuum of work-based learning experiences, that include a paid or compensated (sometimes with course credit) internship during the summer between junior and senior years. See NAF’s Gold Standards for High School Internships. <http://naf.org/internship-gold-standards>

See also: “Preparing 21st Century Citizens: The Role of Work-Based Learning,” a brief from Stanford Center for Opportunity Policy in Education (SCOPE)

Additional ConnectEd or Edutopia WBL Videos:

Video: East San Gabriel Valley ROP

<http://www.connectedcalifornia.org/toolkits>

Engaged Learning-Work-based Learning

Video: Teacher Externships

<http://www.connectedcalifornia.org/toolkits>

Engaged Learning-Work-based Learning

Work Based Learning at School of Digital Media and Design

<http://www.connectedcalifornia.org/toolkits> Engaged Learning Workbased Learning

Video: Animating Dreams: The ACME Animation Program

<http://www.edutopia.org/acme-animation-mentorship-video>