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Linked Learning in Action: Designing and Implementing Integrated Curriculum

Video Discussion Guide



Introduction

This video introduces high school teachers to the concept of creating multi-disciplinary, integrated curriculum, which is designed to deliver standards-based academic and career-technical content through multidisciplinary, career-themed projects. These projects are a key instructional strategy within Linked Learning Programs of Study. For more information on Linked Learning, visit <http://connectedcalifornia.org/pathways/index.php>.

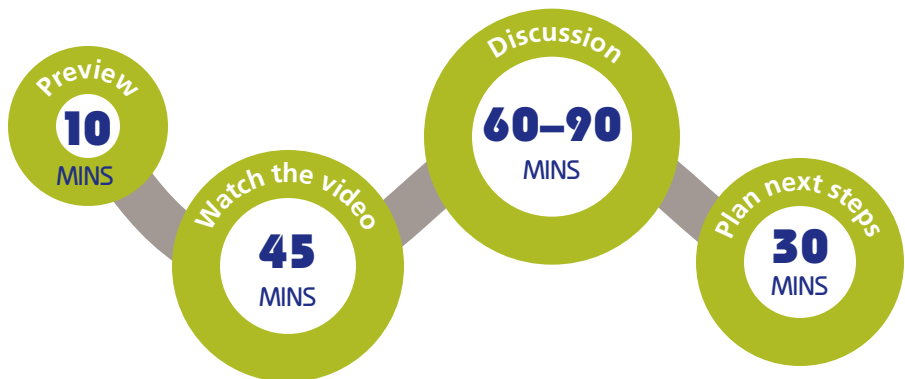
Intended Participants: Grade-level teams of teachers who are in a high school small learning community (pathway, academy, magnet school), and want to improve student outcomes through multidisciplinary integrated curriculum.

Intended Outcomes: Using this video and accompanying discussion guide, teams will:

- Understand the strengths of integrated curriculum and project-based learning
- Identify the challenges of and opportunities for implementing integrated curriculum
- Develop a vision of what integrated curriculum delivery will look like at their school
- Initiate on first steps for bringing that vision of instruction to reality

Expected length of discussion activity—2–3 hours

Includes time to watch the video.



Before you begin

Recorder: Designate at least one person to record the results of your discussion on a board or poster paper. It may be helpful to organize the record under different categories, such as Curriculum Ideas, Implementation Challenges and Solutions, and Questions/Concerns for Administration.

Facilitator: It is also helpful to designate a facilitator to be responsible for keeping the discussion focused, respectful, and inclusive of all perspectives.

Linked Learning Overview: Provide a brief overview of Linked Learning and its four core components and guiding principles so that all discussion participants will understand the context for the video. Resources on the topic can be found at <http://connectedcalifornia.org/pathways/index.php>.

Preview activity—10 minutes

Before watching the video, spend a few minutes thinking about a very successful and engaging learning experience, either as a teacher or a student. What about that particular teaching/learning experience was so powerful?

Record all the team member responses, and then compare and contrast them. Keep your responses in mind while watching the video.

Watch the video—45 minutes

Multidisciplinary integrated curriculum and instruction is the set of materials and strategies that breaks down traditional barriers between subjects to make learning more meaningful and engaging to students. Ideally, integrated curriculum includes a combination of various academic and CTE subjects and goes beyond textbook instruction by requiring students to use their skills and knowledge or acquire new learning in order to solve complex and real problems. English, mathematics, science, social studies, arts, world language, physical education, and career-technical teachers can all collaborate to plan and present related lessons centered around a career-themed issue or problem.

This video documents the design and implementation of multidisciplinary integrated curriculum by the Digital Media Design Academy (DMD), a career-themed, public high school in San Diego, California. At the time of filming, DMD had 470 students, 70 percent of whom were eligible for federal free and reduced-price lunch. From 2004 to 2009, the school raised its Academic Performance Index (API) score 125 points, from 622 to 747.

Crime Time, the project you see in the video, involves the entire 10th-grade class and takes place during the first semester. In groups, students create an interactive website for 7th graders. The website must teach math and science content through engaging users in solving a crime using forensic science techniques.

As you watch the video, keep in mind the characteristics of powerful teaching and learning that you identified in the preview activity.

Discussion—60–90 minutes

The video offers a case study of one school's implementation of career-themed, integrated curriculum. It demonstrates how teachers collaborate to plan a multidisciplinary project that is part of their Linked Learning implementation.

As a team, discuss DMD's experience with the Crime Time unit to help you form a common vision of how integrated curriculum and instruction could improve student outcomes at your school. Refer to the discussion questions on the following page for guidance.

Plan next steps—30 minutes

DMD has taken years to build the capacity for implementing integrated curriculum of the scale documented in the video, and there is still room for improvement. What does your team want to do next in addressing your own integrated curriculum improvement process? What manageable and important goal do you want to accomplish in the next few weeks? This semester? This year?

Discussion questions

1. What made the Crime Time learning experience powerful for students? What made the teaching experience fulfilling for teachers?
2. How can integrated curriculum improve your school's teaching and learning?
3. What skills and concepts do you want to teach students with this type of experience that you cannot teach as well with traditional instruction?
4. Several considerations shape the design and implementation of integrated curriculum. They include:
 - a. Inclusion of content standards from each academic subject at the appropriate time in the semester
 - b. Inclusion of industry standards
 - c. Participation of industry partners/Relevance and authenticity
 - d. Available instructional time/Schedule flexibility
 - e. Available resources and materials
 - f. Available collaboration time for teachers before and during the project

How well did DMD tackle each of these considerations? What would make the Crime Time project better when DMD implements it next time? What other factors belong on the list?

Discuss each item on your list. What are your team's strengths and weaknesses in each area? What kind of additional support is needed for your team to feel confident about integrated curriculum design and implementation?



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Available Resources

Browsing the resources in the table below can assist you in formulating a concrete action plan. For access to more information on these and other related topics, visit ConnectEd at www.ConnectEdCalifornia.org.

If your team wants to...	Take a look at...
Learn the steps involved in creating your own integrated curriculum in this manual	<i>Designing a Multidisciplinary Integrated Curriculum</i> (www.ConnectEdCalifornia.org/curriculum/units.php)
Explore examples of multidisciplinary integrated curriculum from different industry pathways	ConnectEd Studios (www.ConnectEdStudios.org) <i>Integrated Biomedical and Health Science Curriculum</i> (http://www.connectedcalifornia.org/curriculum/units.php)
Create curriculum maps for separate subject areas and merge them onto one calendar to begin planning	Curriculum Mapping Tool (www.ConnectEdStudios.org)
Learn more about project-based learning	Buck Institute for Education (www.bie.org)
Learn more about involving industry partners in your learning community	Career Academy Support Network resources on Partnerships with Employers and Postsecondary Education (http://casn.berkeley.edu/resources.php)

Key Terms

Curriculum Map—A matrix that details the sequence of topics and performance measures of a course or set of courses. Curriculum maps that include all of the relevant courses taught by a multidisciplinary teaching team are used to plan the scope and timing of integrated projects. For more information or to create your own curriculum maps, visit ConnectEd Studios at www.ConnectEdStudios.org.

Linked Learning—An approach that transforms students' high school experience by bringing together strong academics, demanding career-technical education, and real-world experience to help students gain an advantage in high school, a full range of postsecondary options, and careers. Students follow industry-themed pathways, choosing among fields such as engineering, arts and media, or biomedicine and health. For more information, visit ConnectEd: The California Center for College and Career at www.ConnectEdCalifornia.org.

Multidisciplinary Integrated Instruction—Instruction that encourages students to make meaningful connections across subject areas by addressing complicated issues or problems. Core academic and career-technical teachers collaborate to plan and present standards-based lessons related to the issue or problem. The approach does not require team teaching or providing instruction outside of a teacher's area of expertise; however, all teachers are aware of the content taught in other subject areas and are responsible for reinforcing cross-curricular connections with students.

Performance Measure—The specific task that students perform to demonstrate mastery of a standard or benchmark. For example, one high school biology standard is knowing the difference between prokaryotic and eukaryotic cells. A related performance measure might be whether students can identify these types of cells in photographs and 3-D models.

Project/Problem Based learning (PBL)—A systematic teaching methodology that engages students by focusing on a complex question or problem and having them investigate answers to that problem over an extended period of time. While allowing for some degree of student "voice and choice," rigorous projects are carefully planned, managed, and assessed to help students learn key academic content, practice 21st Century Skills (such as collaboration, communication & critical thinking), and create high-quality, authentic products and presentations. For more information, visit The Buck Institute for Education at www.bie.org.