

Glossary for the Linked Learning Essential Elements Rubric

Word or Phrase	Proposed Definition
21st-Century Skills	A broad set of knowledge, skills, work habits, and character traits students need to succeed in school, college, careers, lifelong learning, and civic engagement. Many organizations recommend the integration of skills such as critical thinking, problem solving, and communication into the core academic subjects, such as the Partnership for 21 st Century Skills (www.p21.org), which is guided by the “four Cs”: critical thinking, communication, collaboration, and creativity.
4-year high school plan	A multiyear college, career, and life plan developed by a student in collaboration with his/her counselor(s), family, and teachers. This includes coursework and a continuum of experiences necessary to guide him/her in college, career, civic and community engagement, and fulfillment of their personal goals. Courses typically include the academic core subjects that meet the UC/CSU a-g subject area requirements, career technical education, and electives. Experiences may include work-based learning, community service, college bridge activities, and more. (See also <i>Individualized 6- to 10-year college and career plan</i> below.)
Acceleration	Learning that results from a set of teaching strategies and proceeds at a faster rate and with deeper understanding than that normally found in traditional classrooms. Informed by brain-based research, key components of acceleration include positive learning environment, total learner engagement, collaboration among learners, appeal to all learning styles, and contextual learning.
Advisory board	A group of volunteers, including representatives from business, industry, postsecondary education, and other stakeholders, that meets regularly to support and advise the Linked Learning District Implementation Design Teams and Pathway. Additional stakeholders may include students, parents, families, and civic and community leaders. Key functions may include championing the work of the pathway and its students in the community, pathway evaluation, strategic planning, consultation with faculty, curriculum and project development, support for teacher externships and student work-based learning experiences, and resource development. In addition, other critical functions may include advising of industry standards and expectations from an educational institution, strategic planning, initial identification of work-based learning experiences, and resource development.
After-school programs	Programs designed to provide students with academic and technical enrichment and support, as well as a safe physical and emotional environment beyond school hours. Programs may include tutoring, homework assistance, work-based learning, service learning, sports, and enrichment activities, as well as an array of additional services, programs, and activities that

	reinforce alignment and coherence, and complement the school's academic and technical programs.
Articulation	The practice of aligning curriculum from one educational level to another to support a seamless transition between courses, grade levels, and/or educational institutions. Most commonly, high school courses articulate to community college courses that may allow high school students to earn college credit (i.e., dual credit/concurrent enrollment).
Backwards planning/mapping	A curriculum development process whereby the teacher starts with the desired outcomes for student learning (i.e., what do we want students to know and be able to do at the end of a lesson, unit, or course), then determines how these outcomes will be assessed, and finally designs the lessons, projects, and activities that will lead to those outcomes.
Capstone technical course	An 11th - or 12th-grade culminating career technical education (CTE) course that allows students to demonstrate mastery of pathway and industry standards and learning expectations. Capstone courses typically provide students with an opportunity to apply their knowledge and skills, integrating the material learned in beginning and intermediate CTE courses. Capstone courses may include articulated dual enrollment courses; advanced, industry-based skills and knowledge; problem-/project-based learning; an internship; a portfolio to showcase accomplishments, and may lead to state or industry certification. Often a Senior Project is embedded in the capstone course.
Career technical education (CTE)	A program of study that involves a multiyear sequence of courses that integrates core academic knowledge with technical and occupational knowledge to provide students with a pathway to postsecondary education and careers.
Career technical education (CTE) course sequence	Two or more related CTE courses taken in sequence. A course sequence provides individuals with coherent, rigorous content aligned with the challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions.
Cohort	A group of students with a defined focus who learn together in some or all of their classes and across two or more years.
Cohort scheduling	The scheduling of students with a defined focus together in some or all of their classes. For example, California Ed Code requires that students in California Partnership Academies are scheduled together for at least three academic courses and one CTE course in their sophomore and junior years, with some variation allowed in the senior year.
Collaborative learning	An instructional approach to learning and teaching that involves students working together to solve a problem, complete a task, and/or create a product. Students are responsible for one another's learning as well as their own and learn together, share ideas, critique each other's

	work, and create new knowledge together, and thereby capitalize on one another's resources, strengths, and skills.
Community of practice	A group of people who collaborate over time to develop shared practices guided by common goals, with a focus on continuous learning and improvement. An example would be a team of teachers in a Linked Learning pathway who share students and actively and regularly collaborate on curriculum, instruction, assessment, professional learning, and support for student success.
Complex and extended projects	Projects that require sustained focus and multiple steps over more than one class period, and require outcomes associated with critical and/or creative thinking.
Culturally responsive interventions	Interventions that acknowledge, use, and respect the cultural norms and values, strengths, and prior experiences of students and their families in order to teach and reinforce learning. These involve teaching to students' unique strengths using their culture and language in instruction, creating a culturally responsive environment, and acknowledging each student's unique assets.
Curricular integration	An intentional strategy to connect the content of one or more academic and CTE disciplines so that what is learned in one course is blended with and reinforced in the other course(s). By design, it breaks down traditional barriers between subjects to make learning more meaningful and engaging. (See also <i>Integrated curriculum</i> below.)
Curriculum mapping	A process that helps teachers understand what and when course content and skills are actually being taught in one or more subject areas throughout a semester or a school year. In Linked Learning pathways, a structured process that fosters conversations among pathway teachers about curriculum and instruction. Creating these maps helps pathway teachers understand and enhance curricular integration, and align subject areas, thereby supporting the development of multidisciplinary, integrated projects that enhance students' understanding of the relationships between and among subject areas.
Differentiated instruction	An instructional approach in which instruction is tailored to meet the unique needs of individual students and is designed to help each student access and master a rigorous, standards-based curriculum. The teacher adapts the content, process, and product of lessons to match each student's readiness, needs, and interests. Learning goals for all students are the same, but the required tasks, instructional approach, timing, and materials used vary according to the needs of the individual students.
Distributed leadership	A collective body of individuals who share responsibilities and actions that support the shared vision of the organization. Distributed Leadership for learning and teaching is a leadership approach in which collaborative working is undertaken between individuals who trust and respect each other's contribution. It occurs as a result of an open culture within an institution

	and across institutions. It is an approach in which reflective practice is an integral part, enabling actions to be critiqued, challenged, and developed through cycles of planning, action, reflection, and assessment and replanning. It happens most effectively when people at all levels engage in action, accepting leadership in their particular areas of expertise. It requires resources that support and enable collaborative environments, together with a flexible approach to fluctuations in space, time, and finance which occur as a result of diverse contextual settings in an institution. Through shared and active engagement, distributed leadership can result in the development of the leadership's capacity to sustain improvements in teaching and learning.
Diversity	Variation within and across populations in race, ethnicity, gender, sexual orientation, socioeconomic status, special needs, and/or prior learning experiences.
Dual enrollment	The concurrent attendance of the individual in a secondary and postsecondary institution, often providing secondary students with the opportunity to earn postsecondary credits.
Formative assessment	Frequently referred to as "assessment FOR learning," it is the in-process practice whereby teachers monitor student learning in order to provide students with ongoing feedback that helps them identify their strengths as well as areas of growth. This type of assessment provides teachers with timely information about student learning so they can modify, adjust, and improve their teaching to address needed areas immediately. (See also <i>Summative assessment</i> below.)
Improvement plan	A document that includes action items designed specifically to improve student learning outcomes, with timelines, person(s) responsible, and resources. In Linked Learning pathways, the plan also addresses the recommendations included in the most recent Pathway Quality Review and Certification Final Report. It is not limited to the Final Report, as it is an ongoing process as an end-of-year pathway internal review. Improvement plans are reviewed and revised at least annually.
Individualized 6- to 10-year college and career plan	A plan developed by each student in collaboration with his/her counselor(s), family, and teachers, beginning in middle school and extending through postsecondary education and training, that includes both the courses and a continuum of experiences necessary to prepare him/her for success in college, career, civic and community engagement, and fulfillment of their personal goals. The plan can be developed and implemented as early as middle school to help students reach their full potential and attain their personal and educational goals. Plans often include the student's short- and long-term academic and career goals, a list of the academic and CTE courses the student will need to take at each grade level to reach those goals, identification of the student's strengths and areas that need additional attention, and formal and informal learning experiences the student will need to reach those goals. The plans are

	subject to ongoing reviews, at least annually. Families should participate in the planning process. (See also <i>4-year high school plan</i> above.)
Inquiry-based instruction	An instructional strategy in which students identify and investigate a problem; formulate questions; acquire and analyze necessary knowledge; observe, develop, and support propositions; provide solutions; and share their thinking with others. Research suggests that inquiry-based learning increases student creativity, independence, and problem-solving skills, as well as student achievement.
Integrated curriculum	An intentional strategy to connect the content of one or more academic and CTE disciplines so that what is learned in one course is blended with and reinforced in the other course(s). By design, it breaks down traditional barriers between subjects to make learning more meaningful and engaging. (See also <i>Curricular integration</i> above.)
Integrated, multidisciplinary project	A project in which students are charged with finding viable solutions to real problems, or with achieving specific individual or group outcomes, through units of instruction that are horizontally aligned across several disciplines. Projects are often designed to lead students through multiple steps, assignments, and subject-specific performance tasks, and ultimately culminate in a student product or performance. Such projects often reflect differentiated, collaborative, and individualized curricula, and, in a Linked Learning context, ask students to demonstrate the skills, knowledge, and behaviors authentic to an industry sector. Projects are a common form of instruction in Linked Learning pathways and often result in products and presentations.
Interventions	Data-driven strategies intentionally designed to help students achieve the identified learning standards and outcomes. In Linked Learning pathways, the teacher and the pathway community of practice work together to identify the best and most effective interventions to help meet each student’s individual learning and/or personal needs, such as one of the four core components of Linked Learning: Personal Support, which includes counseling for codependency, health, bereavement, and homelessness. Successful academic interventions often involve early identification of students in need as well as a variety of strategies that are differentiated, culturally relevant and responsive, and research-based.
Learning outcome	There are two types of Outcomes: Student and Pathway-wide: <ul style="list-style-type: none"> • Student: A description of what students should know and be able to demonstrate as a result of learning outcomes from coursework, projects, or work-based learning. • Pathway-wide: A description of what students should know and be able to demonstrate as a result of their pathway educational experiences within the pathway program of study.

Level of performance data available from student information systems	<p>A variety of student data including attendance, credits earned each year, credits that meet the UC/CSU a-g subject area requirements, discipline records, grades, and test scores. Student information systems can show both the level of performance and changes in performance over time for each student. In addition, they can show whether a student is promoted from one grade level to the next and on track to graduate on time. Student performance systems can track “Pathway Completer” status. This information is being used to provide special recognition of graduates similar to CSF during the graduation ceremony and NAF’s Student Certification recognition.</p>
Mission	<p>A formal, short written statement of the purpose and goals of a group or organization that is used to guide actions and decision making while providing a sense of direction. A mission statement explains what the group or organization does, for whom, and the benefit(s). (See also <i>Vision</i> below.)</p>
Necessary conditions	<p>Site and district conditions that support pathway quality and fidelity, including staffing, hiring/retention practices, professional development, personalization, facilities, equipment, funding, and common planning time.</p>
Open access	<p>A policy that ensures that all students, regardless of their past educational success, special education designation, socioeconomic status, English Language Learner designation, race/ethnicity, etc., are provided equal access to educational opportunities including, but not limited to, Linked Learning pathways. Open access supports increased participation of students in high-quality, rigorous education by eliminating barriers and/or other restrictions. It also refers to district, school, and/or pathway enrollment policies and practices that provide access to pathways for students who may be in another school (not their own neighborhood school) in their district or in another district for the purpose of pursuing their career interests.</p>
Pathway	<p>A comprehensive three- to four-year program of study that integrates rigorous academics with high-quality, demanding career technical education organized around a broad industry theme, a sequence of work-based learning experiences, and the personalized student supports needed for student success. Pathways tend to operate as small learning communities that, by design, connect learning with students’ interests and career aspirations, preparing them for the full range of postsecondary options, including two- and four-year colleges and universities, apprenticeships, formal employment training, and military service. Each pathway is organized around a major industry theme such as engineering, arts and media, finance and business, environmental design, or biomedicine and health. The four core components of Linked Learning pathways include:</p> <ul style="list-style-type: none"> • A rigorous academic component that includes English, mathematics, science, history, and

	<p>other pertinent courses.</p> <ul style="list-style-type: none"> • A technical component of three or more courses that help students gain the knowledge and skills that can give them a head start on a successful career. • A series of work-based learning experiences during which students may engage in job shadowing, apprenticeships, and internships, before they leave high school, helping them to understand all the possible choices available to them. • Personalized student supports, including college and career guidance, which includes resume and interview counseling and accelerated supplemental instruction in reading, writing, and mathematics, that helps students master critical academic and career-based components of their education. In addition, personalized student support strategies should be integrated, embedded in the pathway, and intended to assist students in reaching learning and performance goals and outcomes. <p>For additional information see www.LinkedListLearning.org and www.connectedcalifornia.org.</p>
Pathway leadership team	<p>A team of people including, but not limited to, a Pathway Lead, district and site leaders, key pathway teachers, counselors and support staff, and community partners, that meets regularly and has responsibility for the overall management and continuous improvement of the pathway. A team may also include students, parents, advisory board members, and other community members. While the specific roles and responsibilities of the leadership team may vary from pathway to pathway, they may include: participating in the development and supporting the implementation of the pathway continuous improvement plan, analyzing student data and proposing specific strategies to address areas in need of improvement, horizontal and vertical alignment of curriculum, and making recommendations about the pathway’s budget.</p>
Pathway student learning outcome	<p>A description of what students should know and be able to demonstrate as a result of learning when they complete the pathway program of study. Outcomes are established by the pathway community of practice and aligned with student outcomes articulated by the district (e.g., graduate profile) and by the school (e.g., Expected Student Learning Results or ESLRs).</p>
Pathway team	<p>A group that generally includes pathway teachers, site administrators, and affiliated support staff such as counselors, English Language Development teachers, and special education teachers who have students in common. The team meets regularly to plan and implement curricula, instruction, and assessment, as well as pathway events and other activities. The team also meets to address concerns about individual students. Often the pathway team is responsible for developing and implementing the pathway’s continuous improvement plan.</p>
Pathway theme	<p>Broad career areas within one or more national or state career clusters that serve to engage students and focus their learning on postsecondary and career goals. Themes focus and</p>

	contextualize teaching and learning and help focus employer outreach for curriculum support and work-based learning opportunities.
Performance assessment	A way to evaluate and guide student learning through systematic and direct observations of student performance(s) using pre-established performance criteria. Students are expected to demonstrate mastery of specific, identified outcomes as they apply their skills, competencies, and knowledge to real-world problems by performing a task and/or creating a product. Rubrics are generally used to determine what students have learned.
Performance task	A multistep instructional activity designed to explicitly measure student performance and the application of a wide range of skills and knowledge for a defined purpose. Tasks are carefully constructed to elicit responses that demonstrate students' mastery of expected learning outcomes. The tasks generally involve students in constructing various types of products for diverse audiences and developing the process that leads to the finished product. Quality performance tasks engage students and develop their critical thinking skills, use information for a specific purpose, and have students create a product, service, or performance for an identified audience.
Portfolio	A systematic, organized, and purposeful collection of student work that demonstrates the student's progress toward and attainment of identified student learning outcomes over a period of time. Students collect and select their work for inclusion in their portfolios and reflect on the selected works as well as their progress. Teachers, parents, and administrators can view the portfolio to see the student's progress over time.
Portfolio assessment	A structured and formalized process for gathering and examining student work in order to assess progress toward stated learning outcomes. A portfolio becomes a portfolio assessment when (a) the assessment purpose is defined; (b) criteria or methods are made clear for determining what is put into the portfolio, by whom, and when; and (c) criteria for assessing either the collection or individual pieces of work are identified and used to make judgments about performance. Portfolios can be designed to assess student progress, effort, and/or achievement and encourage students to reflect on their learning. A rubric, aligned to these learning outcomes, is generally used to assess students' portfolios. As students reflect about the content of their portfolios and share those reflections with their teacher(s), portfolios become both an assessment tool and a way to guide student progress and improve student achievement.
Postsecondary credit	Postsecondary/college credit earned while still in high school, often attained through successful completion of dual enrollment courses and/or sufficiently high scores on Advanced Placement (AP) and/or International Baccalaureate (IB) exams.

Postsecondary education and/or training	Any form of education or training beyond high school, including, but not necessarily limited to, community college; 4-year college or university; technical or professional school; and/or military training. The emphasis on postsecondary education in Linked Learning pathways reflects the fact that the majority of sustainable living wage careers require some level of education/training beyond high school and the recognition that students need support in making successful transitions to postsecondary education.
Postsecondary options	Options that include, but are not limited to, 4-year degree programs, 2-year certificate or degree programs, apprenticeship programs, formal job training, the military, and employment.
Program of study	A three- or four- year prescribed sequence of academic and technical courses that ensures students complete graduation requirements and are prepared for postsecondary education and a career. Programs of study are typically designed for 9th-12th grades or 10th-12th grades, and may also include postsecondary courses.
Project-based learning	A systematic teaching methodology and learning strategy that engages students by focusing on a complex question, problem, or task and having them design solutions over an extended period of time, often resulting in presentations and products. Projects should be aligned with the expected learning outcomes and are often assessed with rubrics that are aligned to the same expected outcomes. Project-based learning is a common form of instruction in Linked Learning pathways and career academies. Usually, students work as a team to seek answers to a “driving question” and then create an artifact to present their gained knowledge. In career academies, it often entails showing application of academic knowledge and/or skills in a career field. This strategy is supported by the Buck Institute for Education, among others: www.bie.org .
Research-based instructional strategies	Research-based strategies that have demonstrated the support of student learning and long-term student success. Examples include differentiated instruction; culturally responsive instruction; project-based learning; inquiry-based learning and other constructivist approaches; and work-based learning, service learning, and other forms of student-directed learning.
Rubric	A scoring scale used to assess student performance along a task -specific set of criteria. Rubrics clearly define for the student, teacher, and others a range of quality levels for specific criteria that are linked to student learning outcomes. They are used most often to assess students’ products, performances, and/or learning process tasks and are most often presented as a grid that consists of (a) a list of specific criteria that are aligned to student learning outcomes, (b) levels that define the scale for scoring performance and/or product quality, and (c) a clear description of the attributes of the performance or product for each criterion

	arranged by levels of mastery. Rubrics are commonly given to students at the start of an assignment, project, or unit of study, in order to help students make realistic judgments about the quality of their own work.
Rubric (common)	A rubric used routinely by pathway teams, schools, and/or entire districts to measure student progress from a beginning/novice level of performance toward an advanced/expert level of performance in a particular skill area. Common rubrics are generally aligned with student learning outcomes and/or a district's graduate profile.
Student supports/support services and systems (Integrated Student Supports)	Strategies and programs intended to support and assist students in reaching learning and performance goals and outcomes. These services/systems may include tutoring, targeted academic intervention classes, CAHSEE support, accelerated supplemental instruction, baseline and universal counseling support systems, advisory programs, AVID, and credit recovery programs. Health services, mental health and substance abuse counseling, transportation, and other services are also part of the system that supports student learning. Ideally, these systems are integrated with the pathway program and drawn upon as a supplement, not a substitute, for differentiated instruction. Career guidance is also included as a support service, not only for its intrinsic value but also as a means to enhance student performance. Parents and community- and work-based mentors should be engaged as partners in supporting student achievement.
Summative assessment	Frequently referred to as “assessment OF learning,” it is a culminating assessment that provides information about students’ mastery of content at a particular point in time. Summative assessments determine whether students have learned what they were expected to learn and evaluate students’ acquisition of skills and academic achievement at the conclusion of a specific instructional period of time, project, unit, term, or year. (See also <i>Formative assessment</i> above.)
Supplemental/Accelerated instruction	Targeted and accelerated instructional strategies designed to support students who are excelling to either catch up, or expand their knowledge and mastery of the student learning outcomes. Strategies may include modified curricula, such as shortened or more complex assignments, targeted reading assignments, after-school instruction, tutoring, mentoring, reduction of class size, extended school day or year, summer school, and an additional period and/or course – often called an “intervention class” – generally in English Language Arts and/or mathematics.
Technical content/component	A sequence or cluster of three or more CTE courses that are connected to the pathway’s theme. The curriculum comprising those courses is connected to the pathway’s theme and delivers industry-based knowledge and skills.
Vision	A description of how the future will look if a group or organization achieves its mission. (See

	also <i>Mission</i> above.)
Work-based learning (WBL)	<p>An instructional strategy that involves interactions with industry or community professionals and is designed to expose students to future options and provide opportunities for skill development and mastery. WBL is also a series of sequenced and scaled learning experiences that range from career exploration to full internships. These experiences are intentionally designed to help students extend and deepen classroom learning and to make progress toward student learning outcomes that are difficult to achieve through classroom or standard project-based learning alone. The term “work-based” does not mean the experience must occur at a workplace or during the standard “work day.”</p>