

#### Teaching Environmental Literacy through Science and History/Social Science Standards

California Environmental Principles & Concepts (EP&Cs): http://www.californiaeei.org/abouteei/whatistaught/epc/

Goal & Identified Need	Annual Measurable Outcomes & Targets (include by high need & other student subgroups)	Example Actions and Services: Environmental Literacy (means the Environmental Principles and Concepts are taught through the Science and History/Social Science standards)		
State Priority #1. Basic Services				
Qualified and/or credentialed teachers in Science and History/Social Science who understand the Environmental Principles and Concepts (EP&Cs) http://www.californiaeei.org/abouteei/whatistaught/epc/)	Appropriately credentialed and trained teacher in every Science and History/Social Science classroom who understand the EP&Cs.	Invest in professional learning for elementary teachers and secondary teachers across the disciplines related to using real-world environmental experiences to achieve NGSS, HSS, and EP&Cs.learning goals.		
		Acquire supplemental materials that foster Environmental Literacy.		
Adequate materials for supporting Environmental Literacy, aligned to Science and History/Social Science standards and the EP&Cs.	Every classroom utilizes instructional materials aligned to state curriculum standards and the EP&Cs to explicitly support the development of Environmental Literacy in in all subects	For K-8: Ensure locally adopted Science and History/Social Science instructional materials are aligned to state standards and EP&Cs. State-adopted materials will be announced for History/Social Science in 2017 and Science in 2018 but local control funds can be used right away for standards aligned materials.  9-12: Ensure locally adopted Science and History/Social Science instructional materials are aligned to state standards and		
		EP&Cs.  Invest and build physical facilities and spaces where students		
Adequate facilities and locations for Environmental Literacy instruction	Every school has adequate facilities and locations to implement Science and History/Social Science instruction aligned to the EP&Cs	can experience and investigate real-world Science and History/Social Science.  - school gardens - district nature center - "green school" facilities - school outdoor education areas		

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State Priority #2. Implementation of State Standards				
All teachers will be supported in teaching Environmental Literacy	Appropriately trained teacher in every Science and History/Social Science classroom who uses instructional practices aligned with the EP&Cs.	Provide professional learning specifically about EP&Csand the subset of Science and History/Social Science standards that can best be taught and learned outdoors.		
Comprehensive 3-year plan for instruction with the goal of Environmental Literacy through the Science and History/Social Science standards and EP&Cs	District on track to be ready for full implementation by fall 2019	Provide support for teachers to use the-campus for standards-based instruction in Science and History/Social Science aligned to the EP&Cs (e.g. school gardens and green learning spaces), community outdoor spaces and off-campus facilities (e.g., residential outdoor science schools and nature centers).		
Consistent integration of Environmental Literacy across disciplines. Development of a document that aligns Environmental Literacy with NGSS, H/SS and Common Core standards for teachers to use as a guide for integration.	Number of hours teachers report using strategies and/or curriculum that is explicitly designed to achieve the goal of consistent, regular integration of Environmental literacy instruction and learning within lessons, modules, and/or units across a range of subjects.	Teachers engage students in projects where they develop and use their content knowledge and skills related to science and engineering practices, History/Social sciences, and communication to propose and, to the extent possible, implement solutions to local environmental problems.		
Plan for instructional materials and resource management	Every classroom has the materials and resources needed to implement Environmental literacy	District materials management center includes equipment and locations for environmental investigations and has plan for supporting both Science and History/Social Science teachers.		
		Onboard History/Social Studies teachers through engagement in professional learning around materials management center support, ordering, etc.		
State Priority #3. Course Access				
Adequate time provided for instruction in Environmental Literacy	Explicit number and configuration of weekly/minutes provided for Environmental Literacy	Every student spends a minimum of 40 hours per year learning Science and History/Social Science outdoors  Every student has the opportunity to participate in a residential outdoor Science and History/Social Science school sometime between 4th and 8th grades.		
High need students have equitable access to Environmental Literacy instruction; schools serving high proportions of high need students will offer a full range of coursework.	Identified courses and established number of hours for at risk and high needs students to participate in courses that include environmental literacy (e.g., traditional and accelerated course pathways in Science and History/Social Science at the secondary levels; alternative education schools)	Ensure that low income and underserved students have first priority for Environmental Literacy instruction that includes field trips to natural areas, museums, science, and nature centers, as well as course pathways in Science and History/Social Science; alternative education schools, etc.		
Appropriate and sufficient variety of course offerings at the elementary and secondary levels that include Environmental Literacy and have a civic-engagement component	Number, range, and accessibility of course offerings	Ensure that each high school has A-G approved courses in history-social Science, science or Earth science that include community engagement in identifying, investigating, and to the extent possible, resolving local environmental issues.		

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State Priority #4. Student Achievement				
District Science and History/Social Science assessments include Environmental Literacy	Students demonstrate grade-level proficiency in Environmental Literacy through Science and History/Social Science assessments	District Science and History/Social Science assessments include items focused on Science and Environmental Literacy.		
Science and History-Social Science courses with Environmental Literacy components and improving completion rates over time	Increase the number and percentage of students who complete Science and History/Social Science (with Environmental Literacy components) graduation and college requirements (C and D requirements for UC admissions).	Have A-G approved environmental science, environmental history, and earth science courses at every high school.		
NGSS assessments (TBD)	Students will demonstrate grade level proficiency in Science at 5th grade, 8th,grade, and high school.	Look at student performance on the subset of NGSS and H/SS		
State Priority #5. Other Student Outcomes				
Science and History/Social Science <i>learning activation</i> (e.g., fascination, values, competency beliefs, and sensemaking, etc.)	Students will demonstrate high or increased levels of <i>learning activation</i> scoring high or demonstrating increase on relevant assessments for all students and by subgroup. <i>See www.activationlab.org</i> for description and measures.	Science and History/Social Science learning activities should utilize the outdoors and environmental learning contexts to promote the development of learning activation.		
Indicators of environmental literacy (e.g. environmental stewardship, sense of place, connection to nature).	Students will demonstrate high or increased levels of environmental literacy as measured by key research-based constructs (e.g. environmental stewardship, sense of place, connection to nature) for all students and by subgroup. Contact researchgroup@berkeley.edu for information about measures.	Science and History/Social Science learning activities should utilize the outdoors and environmental learning contexts to promote environmental literacy development.		
Out-of-school activities and achievements	Student participation in out-of-school Science and History/Social Science activities and student recognition for achievements increase annually through awards and public acknowledgement.	Every student has outdoor, out of school opportunity to learn about Science and the environment, including a week of residential outdoor science schools for every student sometime between 4 <sup>th</sup> and 8 <sup>th</sup> grade.		
21st Century/Deeper Learning Skills	Students' scores on a selected assessment of 21st Century Skills will increase annually by (insert goal here for all and for subgroups)	Every student has outdoor, out-of-school opportunities to learn about Science and the environment, including a week of residential outdoor science school for every student that include 21st century learning skill development (e.g., cooperation and creativity.)		
State Priority #6. Student Engagement				
Positive engagement in Environmental Literacy learning experiences	Increase student participation in Environmental Literacy activities.  Increase level of student cognitive, engagement in learning activities.	Schools create a continuum of environmental and outdoor instructional activities from K-12 including a minimum of one week of residential outdoor science school.		

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Highly engaged students at all grades	Science and History/Social Science courses with Environmental Literacy components and their enrollment, attendance and completion improve over time*	Schools ensure all students have access and experience a broad course of study, and establish s continuum of environmental and outdoor instructional activities from K-12.			
State Priority #7. Family Involvement					
Parents understand and utilize avenues to increase involvement in their children's Environmental Literacy	Participation in/attendance at school and community Science and History/Social Science environmental learning and engagement offerings	Schools have messaging campaigns to "Take your children outdoors!"			
Opportunities for parents to learn more about Environmental Literacy and how it applies to the community	Each district/school will offer a minimum of one opportunity per year for parents to learn more about Environmental Literacy and the community	Parent events include the connections between the local community and Environmental Literacy, and the importance of spending time outdoors.			
State Priority #8. School Climate					
Inclusive Environmental Literacy activitiesnot just provided to accelerated course pathway learners	Students and parents feel included and welcome at/in Environmental Literacy activities; students feel a sense of pride in their school and efforts in classroom. The school establishes a mechanism for students to provide formal suggestions and feedback to administrators about improving and greening the school environment.	Students have opportunities to use environmental problem solving skills to improve their school or neighborhood environment and/or local community.			