

## **2016 Science Framework** FOR CALIFORNIA PUBLIC SCHOOLS Kindergarten Through Grade Twelve



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To view the remaining sections of the 2016 California Science Framework on the CDE website, go to: <a href="https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp">https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp</a>

Items in this document that relate to crosscutting concepts are highlighted in green and followed by the abbreviation CCC in brackets, **[CCC]**, with a number corresponding to the concept. The same items that correspond to the science and engineering practices are highlighted in blue and followed by the abbreviation SEP in brackets, **[SEP]**, with a number corresponding to the practice.

The Web links in this document have been replaced with links that redirect the reader to a California Department of Education (CDE) Web page containing the actual Web addresses and short descriptions. Here the reader can access the Web page referenced in the text. This approach allows CDE to ensure the links remain current.

## Glossary of Acronyms

3D	Three-dimensional learning of NGSS (SEPs, DCIs, and CCCs)
Α	Algebra (CA CCSSM Connection)
AAAS	American Association for the Advancement of Science
AYP	Annual Yearly Progress
BF	Building Functions (CA CCSSM Connection)
CC	Counting and Cardinality (CA CCSSM Connection)
CCC	Crosscutting Concept
CCR	College and Career Ready
CA CCSS for ELA/Literacy	California Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects
CA CCSSM	California Common Core State Standards for Mathematics
CDE	California Department Education
CED	Creating Equations (CA CCSSM Connection)
CFCC	Curriculum Framework and Evaluation Criteria Committee
CR	Chemical Reactions (Topic Name)
CSP	California Science Project
CSTA	California Science Teachers Association
DCI	Disciplinary Core Idea
DOK	Depth of Knowledge
E	Energy (Topic Name)
ED	Engineering Design (Topic Name)
EE	Expressions & Equations (CA CCSSM Connection)
EEI	California Education and the Environment Initiative
ELA	English Language Arts
EL	English Language Learner
ELD	English Language Development
ELO	Expanded Learning Opportunities

EP&Cs	California Environmental Principles and Concepts
ES	Earth's Systems (Topic Name)
ESEA	Elementary and Secondary Education Act
ESS	Earth and Space Science
ETS	Engineering, Technology, and Applications of Science
F	Functions (CA CCSSM Connection)
FB	Foundation Box
FI	Forces and Interactions (Topic Name)
G	Geometry (CA CCSSM Connection)
GBE	Grade Band Endpoint
GDRO	Growth, Development, and Reproduction of Organisms (Topic Name)
HI	Human Impacts (Topic Name)
HS	High School
	Making Inferences and Justifying Conclusions (CA CCSSM Connection)
ID	Interpreting Categorical and Quantitative Data in the CCSSM (CA CCSSM Connection)
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
IF	Interpreting Functions (CA CCSSM Connection)
IRE	Interdependent Relationships in Ecosystems (Topic Name)
IS	Instructional Segment
IVT	Inheritance and Variation of Traits (Topic Name)
K	Kindergarten
LEP	Limited English Proficiency
LS	Life Science
MD	Measurement and Data (CA CCSSM Connection)
MEOE	Matter and Energy in Organisms and Ecosystems (Topic Name)
MS	Middle School

N-Q	Number and Quantity (CA CCSSM Connection)
NAE	National Academy of Engineering
NAEP	National Assessment of Educational Progress
NAGC	National Association for Gifted Children
NBT	Number and Operations in Base Ten (CA CCSSM Connection)
NCLB	No Child Left Behind Act
NF	Number and Operations—Fractions (CA CCSSM Connection)
NGSS	Next Generation Science Standards
NOS	Nature of Science
NRC	National Research Council
NS	The Number System (CA CCSSM Connection)
NSA	Natural Selection and Adaptations (Topic Name)
NSE	Natural Selection and Evolution (Topic Name)
NSF	National Science Foundation
NSTA	National Science Teachers Association
OA	Operations and Algebraic Thinking (CA CCSSM Connection)
PE	Performance Expectation
PISA	Program for International Student Assessment
PS	Physical Sciences
Q	Quantities (CA CCSSM Connection)
R&D	Research and Development
RI	Reading Informational Text (CA CCSS for ELA/Literacy Connection)
RL	Reading Literature (CA CCSS for ELA/Literacy Connection)
RP	Ratios and Proportional Relationships (CA CCSSM Connection)
RST	Reading in Science and Technical Subjects (CA CCSS for ELA/Literacy Connection)
SEP	Science and Engineering Practices
SEP	Science Expert Panel
SF	Structure and Function (Topic Name)
SFIP	Structure, Function, and Information Processing (Topic Name)

SL	Speaking and Listening (CA CCCSS for ELA/Literacy Connection)
SP	Statistics and Probability (CA CCSSM Connection)
SPM	Structures and Properties of Matter (Topic Name)
SS	Space Systems (Topic Name)
SSE	Seeing Structure in Expressions (CA CCSSM Connection)
STEM	Science, Technology, Engineering, and Mathematics
STS	Science, Technology, and Society
TEL	Technology and Engineering Literacy Assessment
TIMSS	Trends in International Mathematics and Science Study
ТК	Transitional Kindergarten
W	Waves (Topic Name)
W	Writing (CA CCCSS for ELA/Literacy Connection)
WC	Weather and Climate (Topic Name)
WER	Waves and Electromagnetic Radiation (Topic Name)
WHST	Writing in History/Social Studies, Science, and Technical Subjects (CA CCSS Connection)

NGSS Lead States. 2013. Next Generation Science Standards: For States, By States, Volume 2: Appendixes. Washington, DC: The National Academies Press.