



Commission on Teacher Credentialing

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Next Generation Science Standards (NGSS) Transition: Middle School Science Teachers

The Commission on Teacher Credentialing currently issues a total of 9 science content area authorizations on Single Subject Teaching Credentials along with additional supplementary and subject matter authorizations. Only the content areas of ‘Specialized Science’ in grey in *Table 1* do not authorize teaching Integrated Science content. An ‘X’ in a column indicates that the science content area authorization named on the left-hand side of the table is authorized to teach courses in the

Table 1: Current Alignment between K-12 Course Content and Science Authorizations

Science Content Area Authorization	All Courses				Integrated Science	Only Introductory		
	Biological Science	Chemistry	Physics	Earth/ Geosciences		General Science	Life Science	Physical Science
Foundational-Level General Science					K-8	X	X	X
Science: Biological Sciences*	X				K-12	X	X	X
Science: Chemistry*		X			K-12	X	X	X
Science: Physics*			X		K-12	X	X	X
Science: Geosciences*				X	K-12	X	X	X
Biological Sciences (Specialized)	X							
Chemistry (Specialized)		X						
Physics (Specialized)			X					
Geosciences (Specialized)				X				

*Full Science Authorizations includes K-12 Integrated Science Content and Discipline Specific Content Area

Table 2 examines the number of middle school teachers in California public schools assigned to one or more science classes in grades 6 through 8 during the 2012-2013 school year. The data identifies that out of the 12,706 teachers serving in middle school science classrooms in 2012-2013, only 83 (0.65%) teachers in California held a Specialized Science authorization (without an additional science content area) and are not authorized to teach integrated science.

Table 2: Middle School Science Teachers Serving* in California Public Schools, 2012-2013

		Total Percentage
Total Number of Middle School Science Teachers	12,706	
Number of the 12,706 Middle School Science Teachers Holding a Specialized Science Content Area Authorization	196	1.54%
Number of the 196 Middle School Science Teachers Holding a Specialized Science who also hold one or more additional authorizations to teach integrated science content	113	0.89%
Number of the 196 Middle School Science Teachers Holding a Specialized Science NOT authorized to teach integrated science content	83	0.65%

*Includes all teachers assigned to one or more science courses in grades 6 through 8.



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Science Content Area Authorizations for Middle School Integrated Science Key Facts

- 1) Prior to 1997, only two science content area authorizations were issued (Life Science and Physical Science). Individuals holding one of these previous science content areas are authorized to teach integrated science through grade 8.
- 2) Since 1997, teachers earning one of the four full science authorizations (referenced with an "*" in Table 1) in a specific discipline also verified subject matter knowledge in integrated science content and earned an authorization to teach that content through grade 12.
- 3) In 2003, teachers had the option of earning either a full science authorization in a specific science discipline or a Specialized science authorization in the same disciplines. Individuals electing to earn a Specialized science authorization did **not** verify subject matter knowledge in integrated science content and so are **not** authorized unless another appropriate authorization is also held. As noted in Table 1, the content area authorization will have the word (Specialized) noted on their credential.
- 4) Specialized Science authorizations will be discontinued as an option for future science teachers. Transition dates and options for teachers to earn an additional authorization for integrated science are provided in the Commission's Coded Correspondence #14-09: <http://www.ctc.ca.gov/notices/coded/2014/1409.pdf>.
- 5) An employer may assign the holder of a Specialized Science authorization to an integrated science class based on a General Education Limited Assignment Permit (GELAP) for up to three years while they complete any necessary requirements to earn an additional authorization as provided in the following Commission credential leaflet: <http://www.ctc.ca.gov/credentials/leaflets/cl828.pdf>.
- 6) Holders of Multiple Subject Teaching Credentials may serve in any subject area (including integrated science) in grades five through eight as long as they are serving in a 'core setting' with two or more subjects being taught to the same group of students each day. To teach departmentalized science (integrated or discipline specific) outside of the core setting, a supplementary or subject matter authorization in (Introductory) Science or a Single Subject Teaching Credential with a Foundational-Level Science content area authorization must also be held.