

ADDING SCIENCE AUTHORIZATIONS TO EXISTING CREDENTIALS

~Adding a Single Subject Science credential to an existing Multiple Subject credential~
All are NCLB compliant on this page

Questions? Contact the Credential Analyst, Sherri Nakashima at sherrin@csufresno.edu
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Valid Credential Held	Credential sought	Authorized Assignments	Requirements
Multiple Subject	Single Subject Science: A. Biological Science B. Chemistry C. Geosciences D. Physics	Grades 12 and below: <ul style="list-style-type: none"> • Specific subject area • Integrated sciences grades 7-9 • Introductory general science • Introductory life science • Introductory physical science 	1) Subject matter competency by passing CSET exams: www.cset.nesin.com A. Biological Science - subtests 118, 119 and 120 B. Chemistry subtests -118, 119 and 121 C. Geosciences – subtests 118, 119 and 122 D. Physics – subtests 118, 119 and 123 <u>or</u> Completion of approved subject matter program coursework—see Single Subject Science Academic Advisor 2) 3 semester unit science methodology course or equivalent
Multiple Subject	Single Subject Foundational-Level Science	Grades 12 and below: <ul style="list-style-type: none"> • Introductory and general science • Introductory life science • Introductory physical science Integrated science grades 8 and below	1) Passage of CSET examinations 118 and 119. 2) 3 semester unit FL science methodology course or equivalent
Multiple Subject	Single Subject Specialized A. Biological Science B. Chemistry C. Geosciences D. Physics	Grades 12 and below in the specific subject area only	1) Subject matter competency by passing CSET exams: www.cset.nesin.com A. Science - subtests 120 and 124 B. Chemistry – subtests 121 and 125 C. Geosciences – subtests 122 and 126 D. Physics – subtests 123 and 127 2) 3 semester unit science methodology course or equivalent

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Single Subject	Single Subject Science: A. Biological Science B. Chemistry C. Geosciences D. Physics	Grades 12 and below: <ul style="list-style-type: none"> • Specific subject area • Integrated sciences grades 7-9 • Introductory general science • Introductory life science • Introductory physical science 	Subject matter competency by passing CSET exams or approved subject matter coursework: www.cset.nesin.com A. Biological Science - subtests 118, 119 and 120 B. Chemistry subtests -118, 119 and 121 C. Geosciences – subtests 118, 119 and 122 D. Physics – subtests 118, 119 and 123
Single Subject	Single Subject Foundational-Level Science	Grades 12 and below: <ul style="list-style-type: none"> • Introductory and general science • Introductory life science • Introductory physical science Integrated science grades 8 and below	Pass CSET subtests 118 and 119.
Single Subject	Single Subject Specialized A. Biological Science B. Chemistry C. Geosciences D. Physics	Grades 12 and below in the specific subject area only.	Subject matter competency by passing CSET exams: A. Biological Science - subtests 120 and 124 B. Chemistry - subtests 121 and 125 C. Geosciences – subtests 122 and 126 D. Physics – subtests 123 and 127

08/26/10

~Other Science Authorizations Added to a MULTIPLE SUBJECT Credential~
(Supplementary or Subject Matter Authorizations are by coursework only, not exam)

These Subject Matter Authorizations are NCLB Compliant

Added Authorization	Authorized Assignments	Requirements
<i>Subject Matter Authorization Introductory Science</i> added to a Multiple Subject credential	Curriculum grades 9 and below; students can be grade 12 and below. Includes Earth/Geosciences, Integrated Science grades 7-9, Introductory/general science, introductory life and physical science	Completion of 32 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Can be a combination of upper and lower division units. Minimum of 6 semester units in each area. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
<i>Specific Subject Matter Authorization in Biological Science, Chemistry, Geosciences, Physics</i> added to a Multiple Subject credential	Grade 12 and below in the specific subject area. Biological Science can also teach Introductory Life Science	Completion of 32 semester units in the specific subject area. Can be a combination of upper and lower division units. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf

This Supplementary Authorization is NOT NCLB Compliant

Added Authorization	Grade Levels/Settings	Requirements
<i>Supplementary Authorization Introductory Science</i> added to a Multiple Subject credential	Students Grade 9 and below. Integrated science grades 7-9, introductory/ general science, introductory life and physical science	Completion of 10 upper division or 20 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. The 20 units can be a combination of upper and lower division units. Must include a one-year sequence of courses in two of the four areas and at least one lab component. http://www.ctc.ca.gov/credentials/leaflets/cl629.pdf

~Other Science Authorizations Added to a SINGLE SUBJECT Credential~
(Supplementary or Subject Matter Authorizations are by coursework only, not exam)

These Subject Matter Authorizations are NCLB compliant

Added Authorization	Authorized Assignments	Requirements
<i>Subject Matter Authorization Introductory Science</i> added to a Single Subject credential	Curriculum grades 9 and below; students can be grade 12 and below. Includes Earth/Geosciences, Integrated Science grades 7-9, Introductory/general science, introductory life and physical science	Completion of 32 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Can be a combination of upper and lower division units. Minimum of 6 semester units in each area. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
<i>Specific Subject Matter Authorization in Biological Science, Chemistry, Geosciences, Physics</i> added to a Single Subject credential	Grades 12 and below in the specific subject area only. Biological science can also teach introductory life science. No integrated science.	Completion of 32 semester units in the specific subject area. Can be a combination of upper and lower division units. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf

These Supplementary Authorizations are not NCLB compliant

Added Authorization	Authorized Assignments	Requirements
<i>Supplementary Authorization Introductory Science</i> added to Single Subject credential	Curriculum grades 9 and below; students can be in grade 12 and below. Integrated science grades 7-9; Introductory/general science, introductory life and physical science	Completion of 10 upper division or 20 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Can be a combination of upper and lower division units. There must be a one-year sequence of coursework in 2 of the 4 areas and at least one lab component. http://www.ctc.ca.gov/credentials/leaflets/cl603.pdf
<i>Specific Supplementary Authorization in Biological Science, Chemistry, Geosciences, Physics</i> added to a Single Subject Credential	Grades 12 and below in the specific subject area. Biological science can also teach introductory life science.	Completion of 10 upper division or 20 semester units (combination upper and lower division units) in the specific areas listed below. http://www.ctc.ca.gov/credentials/leaflets/cl603.pdf BIOLOGICAL SCIENCE: course of study must include: a) molecular and cellular biology, b) biology of organisms, c) evolution. At least one course must include a lab component. CHEMISTRY: course of study must include: a) structure and stability, b) chemical reactions. At least one course must include a lab component. GEOSCIENCES: course of study must include: a) astronomy, b) geology, c) meteorology, d) oceanography. At least one course must include a lab component. PHYSICS: course of study must include: a) energy-mechanics, b) energy-heat, c) energy-electricity and magnetism, d) wave motion, e) atomic and nuclear physics. At least one course must include a lab component.