



California Math Standards linked with Generation Earth Service Learning Projects: Algebra I

Waste Reduction & Recycling

- 15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.
- 23.0 Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.
- 24.0 Students use and know simple aspects of a logical argument.
- 24.1 Students explain the difference between inductive and deductive reasoning and identify and provide examples of each.
- 24.2 Students identify the hypothesis and conclusion in logical deduction.
- 24.3 Students use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute an assertion.
- 25.0 Students use properties of the number system to judge the validity of results, to justify each step of a procedure, and to prove or disprove statements.
- 25.1 Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.

Stormwater Urban Runoff

- 5.0 Students solve multistep problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.
- 8.0 Students understand the concepts of parallel lines and perpendicular lines and how those slopes are related. Students are able to find the equation of a line perpendicular to a given line that passes through a given point.
- 10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.
- 15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.
- 23.0 Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.

Illegal Dumping

- 23.0 Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.



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Household Hazardous Waste

- 15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.
- 23.0 Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.
- 24.0 Students use and know simple aspects of a logical argument.
- 24.1 Students explain the difference between inductive and deductive reasoning and identify and provide examples of each.
- 24.2 Students identify the hypothesis and conclusion in logical deduction.
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- 25.0 Students use properties of the number system to judge the validity of results, to justify each step of a procedure, and to prove or disprove statements.
- 25.1 Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.