Kindergarten: Physical Sciences, Earth Sciences, Investigation and Experimentation

California State Science Content Standards

Covered in:

Hands-on science labs, demonstrations, & activities. Investigation and Experimentation. Lesson Plans.

Presented by Climate Change Education .org during

Mobile Climate Science Labs

Professional development for teachers

 In school presentations
 Climate science and hands-on education *specialists* presenting alongside teachers and teaching assistants
 Presentations at CSTA, NSTA, AAAS conferences

For school field trips, as presented at local science museums

As aligned with existing science content standards, adopted 1997 Referencing: Science Framework for California Public Schools <u>http://www.cde.ca.gov/ci/sc/cf/documents/scienceframework.pdf</u> Adopted by the California State Board of Education Published by the California Department of Education

Enabling teachers and schools to provide outstanding education called for in the standards under *Investigation and Experimentation* sections. Requirements for a minimum of 20-25% hands-on education in science.

Index of Standards Alignment—other grades, courses and standards: http://climatechangeeducation.org/labs/k12_standards/index.html

Themes: http://climatechangeeducation.org/labs/themes/index.html

In the following, sections of standards noted are part of one or more lab theme. Sections highlighted in green are a *primary focus* of one or more hands-on science lab.

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Kindergarten

Standard Set 1 Physical Sciences

1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:

a. Students know objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, **shape**, **weight**, texture, **flexibility**, attraction to magnets, floating, sinking).

1. b. *Students know* water can be a liquid or a solid and can be made to **change back and forth** from one form to the other.

Standard Set 3

Earth Sci

3. b. Students know changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.

3. c. *Students know* how to identify resources from Earth that are used in everyday life and understand that **many resources can be conserved**.

Standard Set 4

Investigation and Experimentation

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

4 e. Communicate observations orally and through drawings.