Grade 2: 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
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.

Updated April 27, 2011
2nd Grade

Standard Set 1 Physical Sciences

1. g. *Students know* sound is made by vibrating objects and can be described by its pitch and volume.

Standard Set 2 Life Sciences

2. e. *Students know* light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants.

Standard Set 3 Earth Sciences

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. a. Make predictions based on observed patterns and not random guessing.

4. b. Measure length, weight, temperature, and liquid volume with appropriate tools and express those measurements in standard metric system units.

4. c. Compare and sort common objects according to two or more physical attributes (e.g., color, shape, texture, size, weight).

4. d. Write or draw descriptions of a sequence of steps, events, and observations.

4. e. Construct bar graphs to record data, using appropriately labeled axes.

4. f. Use magnifiers or microscopes to observe and draw descriptions of small objects or small features of objects.

4. g. Follow oral instructions for a scientific investigation.