Floodplains Management and NGSS

Crystal Howe - San Diego County Office of Education
Next Generation Science Standards

Image Source: https://ngss.nsta.org/About.aspx

- Adopted NGSS
- Standards based on the Framework
Next Generation Science Standards

Science and Engineering Practices

Crosscutting Concepts

Disciplinary Core Ideas
Next Generation Science Standards

Students engage in Science and Engineering Practices to discover or explore phenomena (Disciplinary Core Ideas) while developing a scientific mindset (Crosscutting Concepts).
<table>
<thead>
<tr>
<th>Grade Levels</th>
<th>Description</th>
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<tbody>
<tr>
<td>Grades K-2</td>
<td>Schoolyard &amp; Macroscopic</td>
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<tr>
<td>Grades 3-5</td>
<td>Community &amp; Macroscopic</td>
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<tr>
<td>Grades 6-8</td>
<td>Statewide &amp; Microscopic</td>
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<td>Grades 9-12</td>
<td>Global &amp; Submicroscopic</td>
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CA Science Framework

*Relevant to local communities and student interests.* Content and skills build on students’ existing experience to learn about and solve real-world problems.

Chapter 1, Page 6, CA Science Framework

Students need first-hand experience with phenomena (either through connections to their everyday life or hands-on engagement) before they can explain them.

Chapter 1, Page 10, CA Science Framework
Phenomena

Scientific phenomena are occurrences in the natural and human-made world that can be observed and which cause one to wonder and ask questions.
Fish Grow Bigger on a Floodplain
3rd Grade

Cache Creek settling basin is a point source of methylmercury.
High School: The Living Earth or Chemistry of the Earth.
Science Literacy

An overarching goal of the NGSS is that “all students have some appreciation of the beauty and wonder of science; possess sufficient knowledge of science and engineering to engage in public discussions on related issues;… and have the skills to enter careers of their choice…”

(NRC 2012a, p. 1)
Thank you!

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