



# Floodplains Management and NGSS

Crystal Howe - San Diego County Office of Education

# Next Generation Science Standards

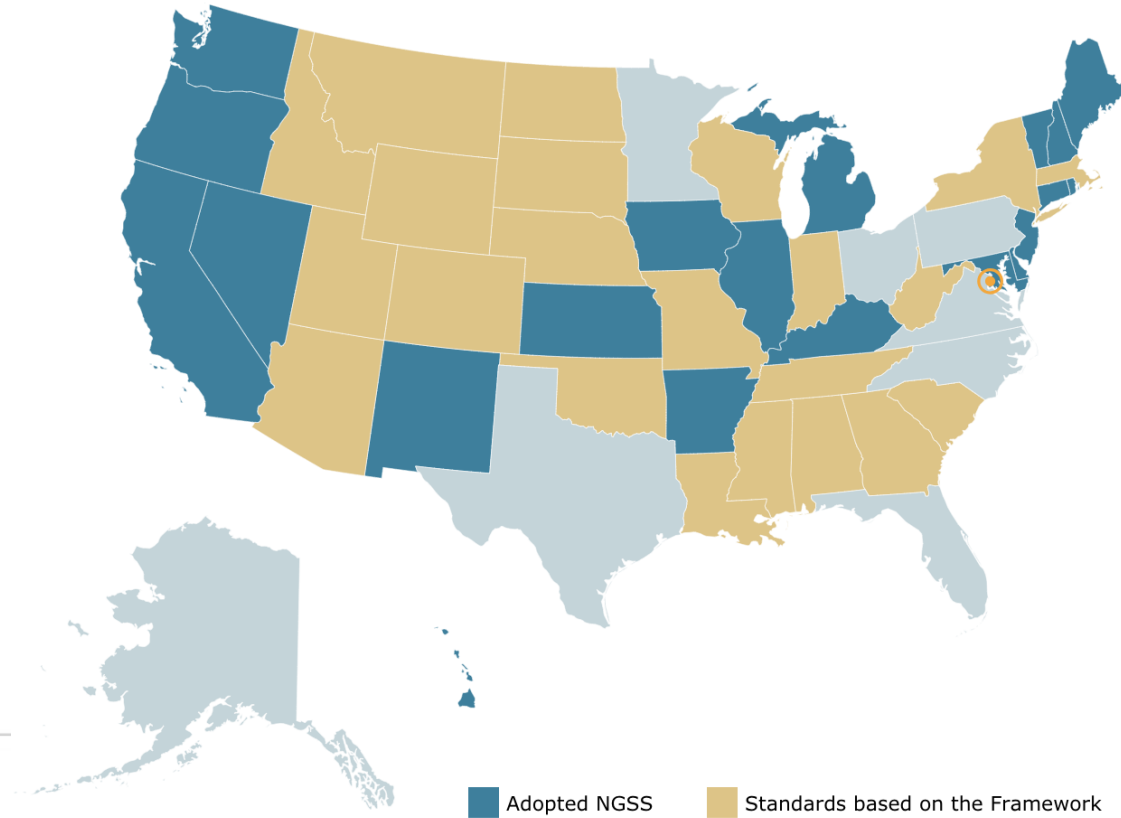


Image Source:  
<https://ngss.nsta.org/About.aspx>

# 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**).

# Grade Level Spirals in NGSS

Grades K-2 →	Schoolyard & Macroscopic
Grades 3-5 →	Community & Macroscopic
Grades 6-8 →	Statewide & Microscopic
Grades 9-12 →	Global & Submicroscopic

# 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.

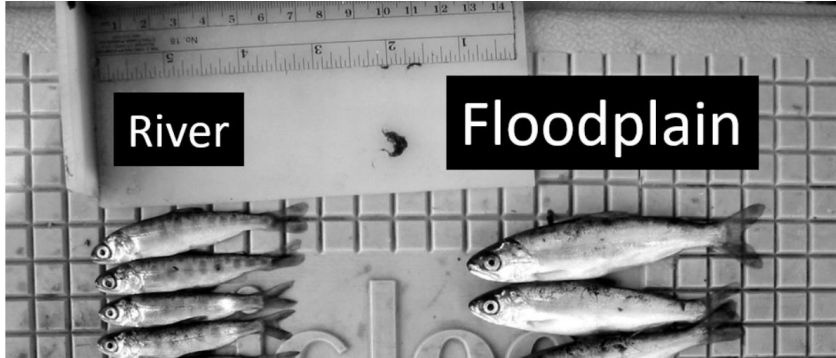
# Phenomena Resources



#ProjectPhenomena Resource

## Fish Grow Bigger on a Floodplain

3rd Grade



#ProjectPhenomena Resource

## 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!

**Crystal Howe**

[crystal.howe@sdcoe.net](mailto:crystal.howe@sdcoe.net)

 @twnklstrr

[ngss.sdcoe.net](http://ngss.sdcoe.net)



san diego county office of  
**EDUCATION**

FUTURE WITHOUT BOUNDARIES<sup>SM</sup>