
Science portfolio

Recognizing teachers as the single most important contributor to student achievement, the S. D. Bechtel, Jr. Foundation invests in high-quality models of science teaching and learning in California’s K-8 classrooms through full implementation of the Next Generation Science Standards (NGSS).

Goal

Advance high-quality science teaching and learning in California’s K-8 classrooms by supporting districts that are strongly committed to NGSS implementation, and by disseminating lessons learned across the state.

Approach

A Support K-8 NGSS implementation in eight diverse districts to develop successful approaches; share promising practices statewide (California K-8 NGSS Early Implementation Initiative).

B Support statewide scaling through the Instructional Leadership Corps and County Offices of Education.

C Invest in advocacy efforts to make NGSS science a core subject.

D Support the development and implementation of NGSS-aligned assessments.

E Support the development and sharing of best practices in environmentally-focused NGSS.

Intended outcomes

✓ Capacity is built in eight districts to implement NGSS with fidelity. These districts become resources for others implementing NGSS.

✓ Key stakeholders in California increasingly use lessons learned from the Early Implementation Initiative to strengthen NGSS implementation.

✓ Sustainable systems of support at both the state and regional level build district capacity statewide to implement NGSS with fidelity.

✓ A growing number of stakeholders statewide prioritize NGSS implementation.

✓ High-quality, NGSS-aligned assessments support implementation, and science achievement comprises a core component of the state school accountability system.

✓ Best practices emerge in environmentally-focused NGSS implementation and are widely used.

Progress to date

• Eight school districts, serving a total of 200,000 K-8 students, are implementing districtwide NGSS plans.

• More than 500 teachers and administrators are being developed as NGSS leaders in these districts. Other districts are beginning to look to them for guidance.

• In 2016, the California State Board of Education adopted a plan for establishing NGSS-aligned student assessments by 2019 and approved their eventual inclusion in the state’s accountability system.

Evaluation and learning

• A multi-year evaluation of the Early Implementation Initiative is exploring the most promising and cost-effective strategies for NGSS implementation, with an emphasis on how to use science to support ELA and math, and how to implement the integrated middle school model. Findings will be disseminated statewide.

• Administrators, principals, and teachers are participating in a community of practice, so that learning can be shared in real time.