

## EXECUTIVE SUMMARY

# Administrators Matter in NGSS Implementation (2019)

## Updated Findings on How School and District Leaders Are Making Science Happen



### NGSS Early Implementers Initiative: Bringing science to life as a core subject in K–8 classrooms

A diverse group of eight California school districts and two charter management organizations is actively implementing the Next Generation Science Standards (NGSS) in grades K–8. These NGSS Early Implementers are supported by the K–12 Alliance at WestEd, and work in partnership with the California Department of Education, the California State Board of Education, and Achieve. The S. D. Bechtel, Jr. Foundation commissions WestEd’s STEM Evaluation Unit independently of the K–12 Alliance to evaluate the Initiative in the eight public school districts. This document summarizes the content and findings of the tenth evaluation report in the Initiative series, published in October 2019. Access the complete series and learn more at [K12alliance.org](http://K12alliance.org).

### Overview

Administrators need learning opportunities if they are to adequately understand the substantial shifts of the Next Generation Science Standards (NGSS) and support teachers in implementing them. Accordingly, the K–8 NGSS Early Implementers Initiative has consistently expanded the professional learning it provides for administrators, particularly for site administrators, who generally have the most contact with teachers. This tenth evaluation report in the series, intended for site and district administrators and state leaders, highlights:

- › The professional learning strategies used by the Initiative to engage and empower administrators to support NGSS implementation (includes two district vignettes)
- › The impact of the professional learning on administrator understanding and actions
- › The challenges experienced by the Initiative in trying to involve administrators
- › Recommendations for increasing administrator help with science implementation

### Impact of Administrator Professional Learning Experiences

Administrators in the Initiative reported growing in their understanding of the structure of the NGSS and the shifts in pedagogy required to teach the NGSS. By the spring of 2019, 86 percent of surveyed principals reported understanding the shifts “fairly well” or “thoroughly.” They also reported improved understanding of how well the NGSS relate to the Common Core State Standards, the scope of transitioning to the NGSS, and how to help teachers transition to the NGSS. Ensuring that teachers had adequate supplies for science instruction and providing additional time for teachers to collaboratively plan and score student work were two key ways that administrators demonstrated support for NGSS instruction. They also communicated through words and actions that science is important and that it is okay for teachers to experiment in science class.

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*My teachers know it’s okay to take risks, it’s okay to fail, it’s all part of the process of being a good science student or a scientist.*  
(Middle school principal)

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District administrators signaled that science was a core subject by including NGSS in their Local Control and Accountability Plans and by mandating minimum instructional minutes per week for science in the elementary grades.

## How the Initiative Contributed to Administrator Understanding of the NGSS

Beginning in Year 1 of the Initiative, administrators were included on the Core Leadership Team. They received extensive professional learning each year and played important leadership roles in districtwide NGSS implementation.

Principals and vice principals participated in a Principal Academy which included a range of professional learning experiences, such as:

- Participating in sessions tailored for principals at the annual Summer Institutes on topics such as ensuring equity and access to quality science instruction for all students, identifying the characteristics of an NGSS classroom, supporting integration of the NGSS and Common Core State Standards integration, implementing the NGSS at the middle school level, and supporting science as a core subject
- Observing a Teaching Learning Collaborative, the lesson study of the Early Implementers Initiative
- Using the Evidence of Learning Protocol to observe science lessons
- Conducting science walk-throughs facilitated by the district Project Director or a Core Administrator
- Attending a presentation by an Early Implementer leader at a district leadership meeting or a school or district professional learning session for teachers

Superintendents were also convened on an annual basis to foster increased involvement and support from upper levels of district administration.

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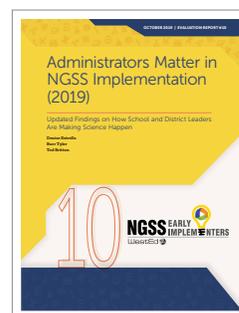
*I think just the fact that our principal gave staff meeting time to science, because we don't have a lot of staff meetings in our school, was a big signal and it also helped us understand the NGSS. And she did this for three staff meeting days. (Kindergarten teacher)*

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## Recommendations for Administrators

The report includes NGSS implementation recommendations for site and district administrators, including:

- Build NGSS professional development into administrators' yearly work calendars.
- Provide administrators with collaborative time to discuss successes and challenges of NGSS implementation.
- Provide school administrators with collaborative classroom observation protocol/s (not for teacher performance review) that facilitate meaningful discussion between principal and teacher about NGSS science instruction and provide professional development for using them.
- Establish instructional minute expectations for science instruction that support parity with English language arts and mathematics.
- Include NGSS-aligned science instruction and student achievement in annual Local Control and Accountability Plans.
- Participate in science walk-throughs and Teaching Learning Collaboratives (lesson studies).
- Provide teachers with time to collaborate on science.
- Support and fund teachers in getting needed hands-on science supplies and equipment.
- Regularly put science on the agenda for standing district-wide and school-wide meetings.
- Communicate that science is a core subject and, as such, an instructional priority.
- Explore and implement high-impact ways to include parents and community members in NGSS delivery.



Read the full report, access other evaluation reports and resources, and learn from NGSS Early Implementers at [K12alliance.org](https://www.k12alliance.org).