



Instructional Materials in the NGSS Era from the Lawrence Hall of Science

Instructional materials developed by the Hall provide a range of approaches to teaching and learning because we continue to innovate and contribute knowledge to the field. There is not one “best” design for a curriculum. That is why we at the Hall make different kinds of products and test different ideas and models in order to come up with better options, as well as options that work better in different contexts. The Hall’s instructional materials designers do our work in schools, with teachers and students, in a wide range of diverse situations. We try out ideas and learn and try them again. Over the decades, as our research and the research of colleagues around the world uncovers more and more about teaching and learning, we work to fold that knowledge into the products we create.

The Hall has brand-new instructional materials designed to address the NGSS, as well as revisions of tried and true existing programs. In this era of Next Generation Science Standards (NGSS), the Hall has been among the first to both come out with brand-new instructional materials designed specifically to address the NGSS, and to do the necessary work to transform the Hall’s existing programs into powerful tools for addressing the kinds of learning and teaching called for in these new standards. All of these materials are based on a thorough analysis of the NGSS and a multi-year design process. They weave together the three dimensions of the NGSS to ensure that Science and Engineering Practices (SEP) support students’ learning of the Disciplinary Core Ideas (DCI) and ability to use Crosscutting Concepts (CCC) across the disciplines. The materials also include assessments to probe students’ developing understanding and progress toward the Performance Expectations (PE) of the NGSS.

All Hall instructional materials meet the criteria for quality. While you will find differences among the Hall’s curriculum programs, you can count on each Hall program being designed using rigorous methods, with and for real teachers and students, in real schools. You can count on all Hall programs meeting the list of criteria for quality described above. And you can count on the Hall supporting teachers, schools, and districts in using our materials for as long as they are in use.

Following is a list of instructional materials designed and developed by the Lawrence Hall of Science that address the NGSS. When used in their entirety, *some* of these programs can provide a comprehensive solution to addressing *all* of the NGSS, while *all* of the programs address *some* of the NGSS. Some are brand new, designed from the ground up for NGSS; while others have been redesigned, building on existing approaches in order to address NGSS. No matter what, choosing instructional materials from the Hall ensures that you get high quality materials and a long term partnership as you figure out how to implement these materials in the context of your school or district’s priorities.

Comprehensive Programs

Amplify Science Elementary	<i>Problem-based deep dives:</i> Students inhabit the role of scientists and engineers to figure out solutions to real world problems and how the natural world works. <i>... Newly designed for NGSS ...</i>
Amplify Science Middle School	<i>Problem-based deep dives:</i> Argumentation-driven units combine hands-on investigations and state-of-the-art simulations to enable students to visualize, model, and explain complex, real-world phenomena <i>... Newly designed for NGSS ...</i>
FOSS Next Generation K–8*	<i>Active science learning experiences:</i> Firsthand investigations that engage students in explaining natural and designed phenomena for deep conceptual learning <i>... Re-designed and enhanced for NGSS ...</i>
SEPUP Middle School courses**	<i>Issue-oriented science:</i> Preparing students to become scientifically literate citizens and make evidence-based decisions <i>... Re-designed and enhanced for NGSS ...</i>

*K-5 units all available now; most middle school units available now—the rest coming soon.

** some units available now—the rest coming soon.

Additional Resources (that may be used to support NGSS implementation)

MARE Grades K-1	Integrated science units: Immersing students in learning about marine/aquatic habitats
Ocean Sciences Sequence Grades 3-5; 6-8	Discourse-rich investigations into the natural world: Using the ocean as a context
Seeds of Science/ Roots of Reading Grades 2-5	Literacy-rich science learning: Students do, talk, read, and write like scientists as they learn about the natural world