FOSS: NEXT GENERATION STANDARDS ALIGNMENT

Developed at:

THE LAWRENCE HALL OF SCIENCE™
UNIVERSITY OF CALIFORNIA, BERKELEY

Designed to meet every standard, including yours.
FOSS doesn’t just meet the standards, it embodies them.

Today, standards like the Framework and NGSS call for students to not just memorize the material, but to think analytically and solve problems. For three decades, the scholars at UC Berkeley’s Lawrence Hall of Science have built FOSS® around these goals. FOSS provides engaging firsthand experiences that focus on three-dimensional learning, builds on them in a developmental progression, and cultivates the ability to deliver on NGSS performance expectations.

Science and engineering practices have always been a critical part of FOSS investigations. Rigorous ELA connections build literacy skills through science.

Every FOSS investigation integrates both disciplinary core ideas and crosscutting concepts for true three-dimensional learning.

Each course addresses multiple core ideas that relate to the grade-level performance expectations.

The crosscutting concepts addressed in each investigation help students make connections at a deeper level between science disciplines.

Embedded, performance, and benchmark assessments, during and after active investigations and readings, monitor progress toward NGSS performance expectations.
FOSS honors NGSS and the Framework.

- FOSS is designed around learning as a developmental progression. FOSS provides experiences that allow students to continually build and develop more complex science and engineering ideas.

- FOSS focuses on core ideas. FOSS chooses depth over superficial coverage, addressing core ideas at multiple grade levels in ever more complex ways.

- FOSS integrates scientific knowledge with the practices of science and engineering. FOSS investigations provide students with engaging firsthand experiences and sense-making activities.

Color-coded point-of-use references are provided every step of the way, from the very beginning of the investigation through the final assessment. They let you see how every FOSS investigation integrates science and engineering practices (blue), disciplinary core ideas (orange), and crosscutting concepts (green) to help students meet NGSS performance expectations.

Performance expectations describe what students should know and be able to do. FOSS carefully crafts a progression of experiences that builds the knowledge and skills students need, enabling them to successfully deliver on NGSS performance expectations.

Detailed correlations between FOSS curricula and specific NGSS expectations are available online at DeltaEducation.com/resources/correlations.
FOSS promotes three-dimensional active learning.

The FOSS program has always placed student learning of science practices on equal footing with science concepts and principles, with robust interdisciplinary connections. NGSS describes these as science and engineering practices, disciplinary core ideas, and crosscutting concepts. In each FOSS Next Generation investigation, students put together these three dimensions to develop increasingly complex knowledge and understanding.

Science and Engineering Practices

Scientists and engineers employ science and engineering practices as their cognitive tools to answer questions and design solutions. Using these same tools, FOSS students gather evidence to explain real-world phenomena.

Disciplinary Core Ideas

Grade-level appropriate disciplinary core ideas are the concepts and established ideas of science. FOSS students develop these building blocks throughout investigations to make sense of phenomena.

Crosscutting Concepts

FOSS students apply these concepts to the situations they encounter in order to connect the varied principles and disciplines of science, helping them develop comprehensive understanding.
FOSS: A vision fulfilled. Science teaching transformed.

Every student deserves the benefits of science education—not just exposure to scientific phenomena, but the opportunity to understand and explain them. From its foundation, FOSS was built to afford that opportunity to all, regardless of background culture, language, or ability.

The scholars at the Lawrence Hall of Science designed FOSS around the principle of collaborative, active investigation. FOSS effectively engages all students by inviting them to interact with observable phenomena, a teaching philosophy subsequently codified with the arrival of NGSS. FOSS makes science accessible and equitable for every student in every classroom. This active learning philosophy has turned two million students and 100,000 teachers into hands-on active investigators of scientific phenomena. FOSS is recognized today by experts and organizations across the country for its proven quality, rigor, support, and effectiveness.

Learn more.

Find your local FOSS/Delta Education representative at DeltaEducation.com/Sales