



# RELEVANT SCIENCE EDUCATION FOR ALL STUDENTS

## WASHINGTON STATE SCIENCE LEARNING STANDARDS

**Administrators play a critical role in the successful implementation of Washington State's Science Learning Standards (WSSLS).** The K-12 science standards cover every grade and every scientific discipline, setting expectations for what students should know and be able to do in science and giving them the skills to compete for the more than 700,000 job openings Washington state is expected to have by 2021.

*How can administrators help their faculty successfully implement the learning standards and improve teaching and learning? Check out the following Q&A and see the resources below.*

### HOW ARE THE WSSLS DIFFERENT FROM THE OLD STANDARDS?

All students can learn science, and the standards are designed to make learning more relevant to every student's life. These standards engage them in hands-on, minds-on technology and engineering practices that help them understand their world and prepare them for future careers. The WSSLS have three distinct dimensions: **Science and Engineering Practices, Disciplinary Core Ideas and Crosscutting Concepts**, all of which help students see science as an interrelated world of inquiry and phenomena. The standards build from year to year, creating a coherent progression of science education.

### WHAT DO THE WSSLS LOOK LIKE IN THE CLASSROOM?

- Teachers are using new approaches and strategies to put **student inquiry at the center of the classroom experience**, helping students learn the content, demonstrate their thinking and learning, and begin to see themselves as scientists and engineers.
- Students explore and observe scientific phenomena through **projects and experiments** to harness their natural curiosity and empower them to answer questions and engineer solutions to problems.
- Students write journals, reports, and media presentations—similar to the communications methods that scientists use—that show what they know.
- By providing hands- and minds-on learning opportunities that make science relevant to students' lives, the standards can **help close opportunity gaps** for systemically underserved students who have historically been underrepresented in science and engineering education and careers.

### IS THERE AN ASSESSMENT ALIGNED TO THE WSSLS?

The Washington Comprehensive Assessment of Science (WCAS) measures students' progress toward meeting the WSSLS. It was administered to students in grades 5, 8, and 11 for the first time in Spring 2018. Students take the assessment on computers and have as much time as they need. Students who need an accommodation may take the assessment on paper at a school's request. The WCAS was designed to require about the same amount of time as previous state science assessments.

### WHAT ARE BEST PRACTICES TO SUPPORT STUDENTS AND EDUCATORS?

- **ENGAGE TEACHERS:** Partner with teachers in your building to develop a long-term plan for science education in your school. Implementing the standards well takes time, professional development, high-quality instructional materials, and team building.
- **HIGHLIGHT STUDENT SUCCESS AND GREAT TEACHING:** Bring together educators in your building to collaborate and share successful examples of student learning. Spotting best practices can improve teaching and student learning through collaborative discourse about successful instruction and common assessments, as well as build a shared sense of purpose around science education.
- **REVIEW THE STANDARDS AND ASSESSMENTS:** Having a good grasp of the standards and assessments will help you identify supports and feedback for teachers during classroom visits. Connect with teachers about how they are incorporating the three dimensions into their lessons.

### RESOURCES

#### WSSLS IN ACTION

<http://bit.ly/RWAScienceEdu>

<http://bit.ly/ShermanSTEAM1>

<http://bit.ly/ShermanSTEAM2>

#### AWSP ELEMENTARY SCHOOL SCIENCE WORKSHOP

<http://bit.ly/AWSPSciWorkshop>

#### A TEACHER'S VIEW OF WSSLS

<http://bit.ly/RWASciBlog1>

#### ENGAGING ENGLISH LEARNERS

<http://bit.ly/ELLScienceInstruction>; <http://bit.ly/ELLSTEMTools>

#### SCIENCE, MATH, AND ENGLISH STANDARDS COMPARISON

<http://bit.ly/StandardsVennDiagram>

#### STATE BOARD OF EDUCATION

<http://sbe.wa.gov/wssls-resources>

#### OSPI

<http://www.k12.wa.us/Science/WSSLS.aspx>