

# Next Generation Science Standards

Washington is one of 26 states that developed the Next Generation Science Standards (NGSS). NGSS is being implemented across the state now. Students will first be assessed on the new science standards in spring 2018.

## What are the NGSS?

- **Standards with a purpose.** The K-12 science content standards cover every grade and every scientific discipline, setting expectations for what students should know and be able to do in science.
- **Three-dimensional learning (3D).** A major difference between the NGSS and previous science standards is 3D learning, which refers to the thoughtful and deliberate integration of three distinct dimensions: **Science and Engineering Practices (SEPs)**, **Disciplinary Core Ideas (DCIs)**, and **Crosscutting Concepts (CCCs)**.
- **Connected learning.** Through 3D learning, the NGSS emphasize that science is not just a series of isolated facts. This awareness enables students to view science more as an interrelated world of inquiry and phenomena rather than a static set of science disciplines.
- **Shift in teaching & learning.** The NGSS represent a fundamental shift in science education and require a different approach to teaching science. Teachers can use a range of strategies to engage students and create opportunities to demonstrate their thinking and learning.

## How is science education changing with the NGSS?

### Science education will involve less:

1. Learning of ideas disconnected from questions about phenomena
2. Teachers providing information to the whole class
3. Teachers posing questions with only one right answer
4. Student reading textbooks and answering questions at the end of each chapter
5. Worksheets
6. Oversimplification of activities for students who are perceived to be “less able” to do science and engineering

### Science education will involve more:

1. Systems thinking and modeling to explain phenomena and to give a context for the ideas to be learned
2. Students conducting investigations, solving problems, and engaging in discussions with teacher guidance
3. Students discussing open-ended questions that focus on the strength of the evidence used to generate a claim
4. Students reading multiple sources and developing summaries of information
5. Students writing of journals, reports and media presentations that offer explanations and arguments
6. Provision of supports so that all students can engage in sophisticated science practices

More information at: [ReadyWA.org](http://ReadyWA.org) and [NextGenScience.org](http://NextGenScience.org)

