



# THE NEXT GENERATION SCIENCE STANDARDS AND POPULATION EDUCATION

## THE DIMENSIONS OF THE NEXT GENERATION STANDARDS:

The Next Generation Science Standards are composed of three dimensions which frame the shift in how science is taught in the classroom:

1. **Practices:** *Emphasis is placed on the actions and behaviors that scientists engage in as they build models and theories about the natural world.*
2. **Content:** *Students learn core scientific content through case studies and real-world application.*
3. **Core Ideas:** *Emphasis is placed on the common themes in all disciplines of science: cause and effect, energy and matter, scale, etc.*

The Next Generation Science Standards were finalized in 2013 and are now in the state adoption process. They are based on The National Research Council's *Framework for K-12 Science Education* and coordinated by Achieve, an education reform organization created by governors and corporate leaders.

[www.nextgenscience.org](http://www.nextgenscience.org)

**POPULATION EDUCATION**

A PROJECT OF POPULATION CONNECTION

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## HOW DOES POPULATION EDUCATION ALIGN WITH THE NEXT GENERATION SCIENCE STANDARDS (NGSS)?

**P**opulation Education and Environmental Education (EE) provide a context for applying the practices and core ideas of the NGSS. The NGSS mark a monumental shift in student learning expectations that emphasize: cross-cutting themes, performance-based expectations, a deeper understanding of content application and integration of science and engineering throughout the K-12 curricula. The aim of the NGSS is to build globally competitive students who are capable of applying scientific knowledge and skill sets to critically analyze problems and take action. Population Education provides a relevant and contemporary link to scientific application and practice that can translate across a variety of disciplines and subjects.

## WHAT CONCEPTS RELATED TO POPULATION EDUCATION ALIGN WITH THE NEXT GENERATION SCIENCE STANDARDS?

Population Education gives students an opportunity to see the real-world application of scientific practice. Additionally, Population Education can be used as a common thread across curriculums and grade levels. For example, a student can analyze data trends in population growth in a mathematics class, hypothesize the environmental impacts of those trends in a science class, and discuss the social and political impacts of those trends in a social studies class.

### Population Education provides students with experiences that align with NGSS dimensions:

- **Practices:** *Students build skills in data analysis, logical reasoning, cause and effect relationships.*
- **Content:** *Students learn real-world case studies for important scientific concepts such as carrying capacity.*
- **Core Ideas:** *Population Education curriculum cross-cuts a variety of subjects by providing student with an interdisciplinary approach to learning.*

## WHAT RESOURCES ARE AVAILABLE TO HELP INTEGRATE POPULATION EDUCATION WITH THE NGSS STANDARDS?

Population Education offers a variety of classroom resources, lesson plans, and professional development opportunities to help teachers effectively implement environmental education in the classroom. In Population Education lesson plans, students think critically, apply content knowledge, analyze data, and formulate solutions to contemporary environmental challenges with the goal of fostering the next generation of environmentally literate scholars. Resources are available on the Population Education website and through professional development opportunities offered nationwide each year.