

Science: What is it good for?

Absolutely EVERYTHING!

Presented by: Julie Kaylor, Carrie
Pomeroy, and Ericka Rutledge

What in the world is my child doing in Science?



In the past, students learned science topics while sitting in rows. Teachers “dispensed” the information to the student.

Today, students work in collaborative groups to determine important science topics. Teachers act as facilitators for this information.



- ❖ The NGSS were developed through a collaborative state-led process.
- ❖ Science supervisors from 26 states worked with a 40-member writing team—which included teachers, working scientists, and education researchers—to develop the draft standards, based on the National Research Council’s document *A Framework for K–12 Science Education*.
- ❖ Each of the 26 states established a broad-based committee to review draft standards and provide feedback. In addition to those reviews, a larger stakeholder team composed of hundreds of members representing K–12 educators, administrators, higher-education faculty, scientists, engineers, business leaders, policymakers, and key organizations provided feedback during five review periods.
- ❖ The draft standards went through two public review periods and received comments from more than 10,000 individuals.

**What are the Next
Generation Science
Standards?**

How will the Next Generation Science Standards Help My Child Prepare for 21st Century Jobs and Grow as a Learner?

A high-quality, robust science education means students will develop an in-depth understanding of content and will gain knowledge and develop skills—communication, collaboration, inquiry, problem solving, and flexibility—that will serve them throughout their educational and professional lives.

The NGSS were benchmarked against countries whose students perform well in science and engineering fields, including Finland, South Korea, China, Canada, England, Hungary, Ireland, Japan, and Singapore.

That all sounds great... but is my student **LEARNING ANYTHING??**

Old Standard:

- Define mass, volume, and density.
- Identify evidence of chemical changes through color, gas formation, solid formation, and temperature change.

New Standard:

- Develop a model to describe that matter is made of particles too small to be seen.
- Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
- Make observations and measurements to identify materials based on their properties.
- Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Brock's Gap uses the following materials:

- ❖ Fifth Grade: AMSTI (Alabama Math, Science, and Technology Institute)
- ❖ Sixth Grade: Curriculum Developed in conjunction with Next Generation Science Standards

Resources:

<http://www.nextgenscience.org/parents>

Alabama Past Standards

Next Generation Science Standards- 5th and 6th Grade