

Why It's Time for **NEW** SCIENCE EDUCATION STANDARDS



Science education needs to keep pace with the changing world around us.

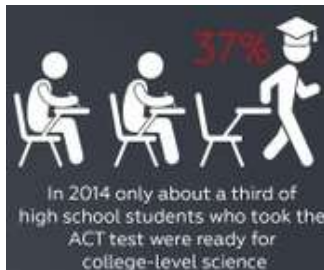


Our nation's workforce needs people with Science, Technology, Engineering, & Mathematics (STEM) skills.



Science knowledge has an impact on the daily lives of all Americans.

Students are not prepared for the future.



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Additional resources:

About the Next Generation Science Standards. (n.d.). Retrieved June 14, 2016, from <http://ngss.nsta.org/About.aspx>

Next Generation Science Standards. (n.d.). Retrieved June 14, 2016, from <http://www.nextgenscience.org/>

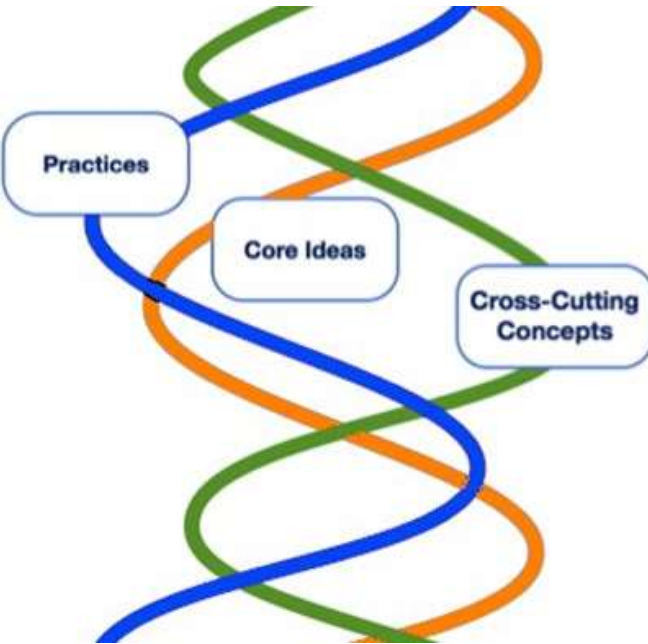
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New Jersey Student Learning Standards: **SCIENCE**

NGSS Lead States



Three Dimensional Learning: The Base of NJSSL-S



Dimension 1: Practices

Behaviors that scientists engage in as they investigate and build models and theories about the natural world

Dimension 2: Crosscutting Concepts

Links the different domains of science: patterns, similarity, & diversity; cause & effect; scale, proportion & quantity; systems & systems models; energy & matter; structure & function; stability & change

Dimension 3: Disciplinary Core Ideas

Focuses k-12 curriculum, instruction, and assessments on most important aspect of science

How The Students Will Benefit:



Grounding Practice in Research:

- Research shows that engaging in practices used by scientists & engineers plays a critical role in comprehension and helps students form a deeper understanding



Making Connection to Common Core:

- Incorporate reasoning skills used in language arts and mathematics
- Teach students to analyze data, model concepts, & strategically use tools through teamwork.

Less Memorizing, More Sense Making:

- More active participation in making observations and conducting investigations



Applying Knowledge in Context:

- Science provides a critical foundation for understanding the world around us.
- This integrated perspective gives students a system of thinking that stretches beyond classroom material.

Science Education Will Involve Less:

- Rote memorization of facts & terminology
- Teachers providing information to the whole class
- Worksheets

Science Education Will Involve More:

- Developing explanations and designing solutions supported by evidence-based arguments
- Students conducting investigations, solving problems, and engaging in discussions with teachers' guidance
- Student writing of journals, reports, posters, and media presentations that explain and argue