



## Calendar of Events:

Oct 14 Elementary Reading Festival

Oct 16 West Middle and High Academy

Oct 17 3/2 Academy

Oct. 24 5/4 Academy

Oct. 28 High School Reading Festival

## Inside this Issue:

[Science Standards Fact Sheet](#)

[Next Generation Science Standards](#)

[Achieve.org](#)

[New Science Standards On the Way](#)

[The Need for New Science Standards](#)

[Frequently Asked Questions about NGSS](#)

[Kentucky In the Lead for New Science Standards Development](#)

# Friday Focus

## CARTER COUNTY SCHOOLS

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### Why New Science Standards?

- It has been 15 years since science standards were revised. Since that time, many advances have occurred in the fields of science and science education, as well as in the innovation-driven economy.
  - The U.S. has a leaky K–12 STEM talent pipeline, with too few students entering STEM majors and careers at every level—from those with relevant postsecondary certificates to PhD's. We need new science standards that stimulate and build interest in STEM.
  - Unfortunately, science and mathematics achievement in the U. S. continues to lag compared to our international competitors, and this lag has already begun to impact the competitiveness of young Americans as well as the competitiveness of the U.S. in the global economy.
  - The U.S. ranked 17th in science and 25th in mathematics on the 2009 PISA assessment. Less than 10 percent of U.S. students scored at one of the top two of six performance levels.
  - More than a third of eighth-graders scored below basic on the 2009 NAEP Science assessment.. We can't successfully prepare students for college, careers and citizenship unless we set the right expectations and goals. While
- standards alone are no silver bullet, they do provide the necessary foundation for local decisions around curriculum, assessments, and instruction.
- engineering practices and cross-cutting concepts. The integration of rigorous content and application reflects how science is practiced in the real world.
- What are the major shifts in science curriculum and instruction as a result of NGSS?**
1. K-12 Science Education Should Reflect the Interconnected Nature of Science as it is Practiced and Experienced in the Real World.
  2. The Next Generation Science Standards are student performance expectations, what students are expected to be able to do after instruction.
  3. The Science Concepts in the NGSS Build Coherently from K-12.
  4. The NGSS Focus on Deeper Understanding of Content as well as Application of Content.
  5. Science and Engineering are Integrated in the NGSS, from K-12.
  6. The NGSS are designed to prepare students for college, career, and citizenship.
  7. The NGSS and Common Core State Standards (English Language Arts and Mathematics) are Aligned.



*Relationships and Convergences Found in the Common Core State Standards in Mathematics (practices), Common Core State Standards in ELA/Literacy\* (student portraits), and A Framework for K-12 Science Education (science & engineering practices)*

