

The Common Core State Standards Initiative:

A state-led effort to create shared high standards to make sure all American students are ready for college and work.

Two plus two should equal four, no matter where you are. Today, we have different standards in every state and we need a common core of state standards to ensure all students, no matter where they live, are prepared for success in college and work. Building on the excellent foundation of standards states have laid, these standards are the first step in providing our young people with a high-quality education. It should be clear to every student, parent, and teacher what the standards of success are in every school.

Teachers, parents and community leaders have all weighed in to create the common core state standards. The draft K-12 Common Core State Standards are a breakthrough in focus and coherence. They allow students to understand what is expected of them and to become progressively more proficient in understanding and using mathematics. At the same time, teachers will be better equipped to know exactly what they need to help students learn and establish individualized benchmarks for them. The common core draft standards focus on core conceptual understandings and procedures starting in the early grades, thus enabling teachers to take the time needed to teach core concepts and procedures well -- and to give students the opportunity to really master them.

With students, parents and teachers all on the same page and working together for shared goals, we can ensure that students make progress each year and graduate from school prepared to succeed and build a strong future for themselves and the country.

Key Takeaways from the Draft K-12 Common Core State Standards Initiative in Mathematics

- The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals*--which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.
- In kindergarten, the standards follow successful international models and recommendations from the National Research Council's Early Math Panel report, by focusing kindergarten work on the *number core*: learning how numbers correspond to quantities, and learning how to put numbers together and take them apart (the beginnings of addition and subtraction).
- The K-5 standards build on the best state standards to provide detailed guidance to teachers on how to navigate their way through knotty topics such as *fractions, negative numbers, and geometry*, and do so by maintaining a continuous progression from grade to grade.
- The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels - rather than the current practices by which many students learn enough to get by on the next test, but forget it shortly thereafter, only to review again the following year.
- Having built a strong foundation K-5, students can do *hands on learning* in geometry, algebra and probability and statistics. Students who have completed 7th grade and mastered the content and skills through the 7th grade will be *well- prepared for algebra* in grade 8.

- The middle school standards are robust and provide a coherent and rich *preparation for high school mathematics*.
- The high school standards call on students to *practice applying mathematical ways of thinking to real world issues and challenges*; they prepare students to think and reason mathematically.
- The high school standards set a *rigorous definition of college and career readiness*, by helping students develop a depth of understanding and ability to apply mathematics to novel situations, as college students and employees regularly do.
- The high school standards *emphasize mathematical modeling*, the use of mathematics and statistics to analyze empirical situations, understand them better, and improve decisions. For example, the draft standards state: “Modeling links classroom mathematics and statistics to everyday life, work, and decision-making. It is the process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions. Quantities and their relationships in physical, economic, public policy, social and everyday situations can be modeled using mathematical and statistical methods. When making mathematical models, technology is valuable for varying assumptions, exploring consequences, and comparing predictions with data.”