Illinois Common Core Standards

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COMMON CORE STATE STANDARDS

Background
Parents, teachers, school administrators and experts from across the country together with state leaders, through their membership in the Council of Chief State School Officers (CCSSO) and the National Governors Association Center (NGA Center), have led the effort to develop a common core of state standards. The standards were written by content experts, teachers, researchers and others. CCSSO and the NGA Center provided public comment periods for all stakeholders to submit feedback on the draft standards documents. Those comments were incorporated into the final standards.

The Common Core State Standards include Math and English Language Arts. These were the first subjects chosen because they teach skills upon which students build skill sets in other subject areas. Both content and skills have been incorporated. One of the criteria on which the standards have been evaluated is whether or not they include rigorous content and application of knowledge through high-order thinking skills. Science will be the next subject to be developed.

The standards have been divided into two categories:

1. college and career ready graduation standards, which address what students are expected to learn when they have graduated from high school; and
2. K-12 standards which address expectations for elementary through high school.

Teachers have been a critical voice in the development of the standards. The National Education Association (NEA), American Federation of Teachers (AFT), National Council of Teachers of Mathematics (NCTM), and National Council of Teachers of English (NCTE), among other organizations have been instrumental in bringing together teachers to provide specific, constructive feedback on the standards.

ILLINOIS’ ROLE IN COMMON CORE
For the past few years, many groups had raised the issue of revising the current Illinois Learning Standards. The expectations we have for what students must know and be able to demonstrate were different in 1997 when the standards were adopted. Illinois had started the revision process by convening an ELA and Math team of teachers in January 2009. Within a few months of beginning this work, the Common Core State Standards Initiative was introduced nationwide. The dedicated members of the core content teams continued to work with postsecondary partners on draft revisions and further expand the discussion of college and career readiness. Their work resulted in thoughtful feedback on the common core draft documents and the opportunity for educators statewide a chance to offer input into the drafts and gain a better understanding of what it means to be college and career ready.

HOW WILL THE STANDARDS IMPACT TEACHERS?
The standards will help teachers develop and implement appropriate and effective instructional strategies for their students by providing benchmarks for skills and knowledge that their students should have by the end of the each year.
The standards will improve teacher education programs by giving clear expectations of what students are expected to know and be able to do at each grade level; provide the opportunity for teachers to be involved in the development of assessments linked to these internationally benchmarked standards; allow states to develop and provide better assessments that more accurately measure whether or not students have learned what was taught; and guide educators toward curricula and teaching strategies that will give students a deep understanding of the subject and the skills they need to apply their knowledge.

WILL THE COMMON CORE STATE STANDARDS KEEP LOCAL TEACHERS FROM DECIDING WHAT OR HOW TO TEACH?

No. Common core standards are a clear set of shared goals and expectations for what knowledge and skills will help our students succeed in postsecondary education, job training programs, and careers. Local teachers, principals, superintendents, and others will decide how to best meet these standards. Teachers will continue to create lesson plans and tailor instruction to the individual needs of the students in their classrooms. Local teachers, principals, superintendents, and school boards will continue to make decisions about curriculum and how their school systems are operated.

Key Design Features of the Common Core

ELA: The College and Career Readiness standards anchor the document by defining general, cross-disciplinary literacy expectations. There are grade level standards for K-8. Grade bands for 9-10 and 11-12 are used to allow flexibility in high school course design. Expectations for research and media skills are embedded throughout the Standards rather than a separate section. The K-5 standards include expectations for reading, writing, speaking, listening, and language applicable to a range of subjects. The standards for grades 6-12 are divided into two sections:

1. An ELA section; and
2. A section for history/social studies, science, and technical subject matter.

The division reflects the need for developing literacy skills across disciplines and is in response to research establishing the need to be proficient in reading informational text in a variety of content areas.

Math: The math standards are formed around eight Mathematical Practices that educators at all levels should seek to develop in their students. The purpose of the eight practices is to guide the mathematical maturity and expertise with the subject as students progress through the elementary, middle, and high school years.

The Standards for Mathematical Content are a combination of procedure and understanding. The math standards are structured differently than the ELA standards in that the content standards which set an expectation of understanding are considered points of intersection between the content and practice.

Grades K-5 standards identify specific skills and knowledge for counting and cardinality, operations, algebraic thinking, number and operations in base ten, measurement and data, and geometry.
Grades 6-7 standards identify specific skills and knowledge for ratios and proportional relationships, the number system, expressions and equations, geometry, and statistics and probability.
Grade 8 standards identify specific skills and knowledge for the number system, expressions and equations, functions, geometry, statistics, and probability.
The high school standards are listed in **six conceptual categories** including number and quantity, algebra, functions, modeling, geometry, statistics and probability.

**NEXT STEPS**

**The Process**
The common core state standards initiative is a state-led effort to establish consistent and clear standards that prepare all students for success. ISBE has taken action in a number of ways outlined below. The process to fully implement new standards touches numerous systems including assessment, curriculum, professional development, teaching standards and various support components such as RTI. As the details for implementation are determined, the many reform efforts and initiatives underway will be considered to ensure the work is aligned and coordinated. It is anticipated the development and implementation will span over the next eighteen-twenty four months with varying phases of work:

**PHASE I:** Adoption, Communication and Coordination

**PHASE II:** Communication, Resource design, and Design of Implementation System

**PHASE III:** Transition, Implementation, and Technical Assistance

**Regional Meetings**
ISBE will host, in conjunction with ICCB and IBHE, a series of **six regional informational meetings** to officially launch the Common Core Standards. The ICCB and IBHE will address what the common core means from their perspective and the impact the standards will have on their work. Each meeting will be planned in coordination with the Regional Offices to introduce the standards, discuss the various elements that will be impacted during the process, provide details regarding the roll out and implementation and allow for Q&A. All stakeholders will be invited to the six public meetings.

**Communications Plan**
ISBE is working with Frontline Public Strategies to implement a strategic communications proposal. Immediate plans include:

- Public announcement of the Board's adoption of the common core, background
- Development of materials and talking points/toolkits for placement on the website and distribution to stakeholders and the public discussing the benefits of the common core for students, parents teachers and administrators
- Direct communications to legislators in a series of pieces discussing what the adoption means for Illinois in terms of competing in Race to the Top and the benefits to students and the economy.

Materials are currently in development and messages to stakeholders are being drafted and reviewed for widespread dissemination. Communication will be ongoing with all partners and stakeholders. Outreach to various stakeholders is underway to identify needs and determine ways in which to collaborate as long term planning takes place.
Gap analysis
A small team of teachers will be assembled to conduct a gap analysis of the current standards and the common core utilizing an online tool provided to all states by Achieve, Inc. A report will be generated to identify any unmatched current standards to the common core. The analysis will inform state and local efforts in areas such as curriculum mapping, formative assessments, and benchmarking.

Professional Development
The ROEs/ISCs have been engaged to develop and deliver common core information to schools and districts. The IARSS professional development committee has developed an action plan for a comprehensive, statewide approach to deliver the training to teachers statewide.

Assessment
The current assessment system will undergo significant adaptations that are in the very early stages of design and development. The nation's governors and chief state school officers believe these new standards offer an unprecedented opportunity for states to work together to dramatically improve the quality, cost-effectiveness, and comparability of state assessments. Illinois has signed on to be a Governing Board state for the PARCC consortium. The consortia on assessment is focused on developing richer, more authentic evaluations of student learning.
OVERVIEW OF COMMON CORE STATE STANDARDS

College and Career Readiness

The descriptions that follow are not standards themselves but instead offer a portrait of students who meet the standards set out in the common core. As students advance through the grades and master the standards in reading, writing, speaking, listening, and language, they are able to exhibit with increasing fullness and regularity these capacities of the literate individual.

They demonstrate independence.
Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request clarification, and ask relevant questions. They build on others' ideas, articulate their own ideas, and confirm they have been understood. Without prompting, they demonstrate command of standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials.

They build strong content knowledge.
Students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking.

They respond to the varying demands of audience, task, purpose, and discipline.
Students adapt their communication in relation to audience, task, purpose, and discipline. They set and adjust purpose for reading, writing, speaking, listening, and language use as warranted by the task. They appreciate nuances, such as how the composition of an audience should affect tone when speaking and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in science).

They comprehend as well as critique.
Students are engaged and open-minded—but discerning—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and premises and assess the veracity of claims and the soundness of reasoning.

They value evidence.
Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.
They use technology and digital media strategically and capably. Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

They come to understand other perspectives and cultures. Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own.

Math

- The standards stress not only procedural skills 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.

- 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.

- 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.

**English Language Arts**

**Reading**

- The standards establish a "staircase" of increasing complexity in what students must be able to read so that all students are ready for the demands of college- and career-level reading no later than the end of high school. The standards also require the progressive development of reading comprehension so that students advancing through the grades are able to gain more from whatever they read.

- Through reading a diverse array of classic and contemporary literature as well as challenging informational texts in a range of subjects, students are expected to build knowledge, gain insights, explore possibilities, and broaden their perspective. Because the standards are building blocks for successful classrooms, but recognize that teachers, school districts and states need to decide on appropriate curriculum, they intentionally do not offer a required reading list. Instead, they offer numerous sample texts to help teachers prepare for the school year and allow parents and students to know what to expect at the beginning of the year.

- The standards mandate certain critical types of content for all students, including classic myths and stories from around the world, foundational U.S. documents, and seminal works of literature. The standards appropriately defer the many remaining decisions about what and how to teach to states, districts, and schools.

**Writing**

- The ability to write logical arguments based on substantive claims, sound reasoning, and relevant evidence is a cornerstone of the writing standards, with opinion writing—a basic form of argument—extending down into the earliest grades.

- Student research—both short, focused projects (such as those commonly required in the workplace) and longer term in-depth research—is emphasized throughout the standards but most prominently in the writing strand since a written analysis and presentation of findings is so often critical.

- Annotated samples of student writing accompany the standards and help establish adequate performance levels in writing arguments, informational/explanatory texts, and narratives in the various grades.

**Speaking and Listening**
• The standards require that students gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media.

• An important focus of the speaking and listening standards is academic discussion in one-on-one, small-group, and whole-class settings. Formal presentations are one important way such talk occurs, but so is the more informal discussion that takes place as students collaborate to answer questions, build understanding, and solve problems.

Language

• The standards expect that students will grow their vocabularies through a mix of conversations, direct instruction, and reading. The standards will help students determine word meanings, appreciate the nuances of words, and steadily expand their repertoire of words and phrases.

• The standards help prepare students for real life experience at college and in 21st century careers. The standards recognize that students must be able to use formal English in their writing and speaking but that they must also be able to make informed, skillful choices among the many ways to express themselves through language.

• Vocabulary and conventions are treated in their own strand not because skills in these areas should be handled in isolation, but because their use extends across reading, writing, speaking, and listening.

Media and technology

• Just as media and technology are integrated in school and life in the 21st century, skills related to media use (both critical analysis and production of media) are integrated throughout the standards.
General Information on Common Core

What are the Common Core Standards?

The Common Core State Standards Initiative (CCSSI) is coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). This has been a state-led and driven initiative from the beginning. States will voluntarily adopt the standards based on the timelines and context in their state. The standards, developed in collaboration with teachers, school administrators, and education experts, establish clear and consistent goals for learning that will prepare our children for college and the workforce. These standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate from high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs. The Standards are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked.

- The Common Core State Standards will provide a consistent, clear understanding of what students are expected to learn, so that teachers and parents know what they need to do to help 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.

- The Common Core State Standards are designed to be relevant to the real world, reflecting the knowledge and skills that our young people need for success in both college and work.

- The best understanding of what works in education comes from practice and experience. That’s why the standards are being developed by the states – not the federal government – and they incorporate the best and highest of the current state standards.

- And the best understanding of what works in the classroom comes from the teachers who are in them. That’s why these standards will establish what students need to learn, but they will not dictate how teachers should teach. Instead, schools and teachers will decide how best to help students reach the standards.
How will the standards impact teachers?

The standards will provide important goals for teachers to ensure they are preparing students for success in college and the workforce. They will help teachers develop and implement effective strategies for their students by providing benchmarks for skills and knowledge that their students should have by the end of the year.

The standards will help colleges and professional development programs better prepare teachers; provide the opportunity for teachers to be involved in the development of assessments linked to these top quality standards; allow states to develop and provide better assessments that more accurately measure whether or not students have learned what was taught; and guide educators toward curricula and teaching strategies that will give students a deep understanding of the subject and the skills they need to apply their knowledge.

The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participation of students with special education needs. For example, for students with disabilities reading should allow for use of Braille, screen reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

These Standards do not dictate curriculum or teaching methods. For example, just because topic A appears before topic B in the standards for a given grade, it does not necessarily mean that topic A must be taught before topic B. A teacher might prefer to teach topic B before topic A, or might choose to highlight connections by teaching topic A and topic B at the same time. Or, a teacher might prefer to teach a topic of his or her own choosing that leads, as a byproduct, to students reaching the standards for topics A and B.

What students can learn at any particular grade level depends upon what they have learned before. Ideally then, each standard in this document might have been phrased in the form, "Students who already know ... should next come to learn ...." But at present this approach is unrealistic—not least because existing education research cannot specify all such learning pathways. Of necessity therefore, grade placements for specific topics have been made on the basis of state and international comparisons and the collective experience and collective professional judgment of educators, researchers and mathematicians.

One promise of common state standards is that over time they will allow research on learning progressions to inform and improve the design of standards to a much greater extent than is possible today. Learning opportunities will continue to vary across schools and school systems, and educators should make every effort to meet the needs of individual students based on their current understanding.
What is Not Covered by the Standards?

1. The Standards define what all students are expected to know and be able to do, not how teachers should teach.

2. While the Standards focus on what is most essential, they do not describe all that can or should be taught. A great deal is left to the discretion of teachers and curriculum developers. The aim of the Standards is to articulate the fundamentals, not to set out an exhaustive list or a set of restrictions that limits what can be taught beyond what is specified herein.

3. The Standards do not define the nature of advanced work for students who meet the Standards prior to the end of high school. For those students, advanced work in such areas as literature, composition, language, and journalism should be available.

4. The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

5. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-high school lives.

6. While the ELA and content area literacy components described herein are critical to college and career readiness, they do not define the whole of such readiness. Students require a wide ranging, rigorous academic preparation and, particularly in the early grades, attention to such matters as social, emotional, and physical development and approaches to learning. Similarly, the Standards define literacy expectations in history/social studies, science, and technical subjects, but literacy standards in other areas, such as mathematics and health education.

Will more standards mean more tests?

No. Having one set of standards will make it easier for states to pool information and resources to develop a shared set of high quality tests to better evaluate student progress. The goal is not to have more tests, but to have better tests that help students, parents, and teachers.

Assessment

- Like adoption of standards, the development of common assessments will be up to the states.

- Some states plan to come together voluntarily to develop a common assessment system, based on the Common Core State Standards.

- State-led consortia on assessment would be grounded in the following principles: allow for comparison across students, schools, districts, states and nations; create economies of scale; provide information and support more effective teaching and learning; and prepare students for college and careers.
• The consortia on assessment are focused on developing richer, more authentic evaluations of student learning, not more assessments.

• The nation’s governors and chief state school officers believe these new standards offer an unprecedented opportunity for states to work together to dramatically improve the quality, cost-effectiveness, and comparability of state assessments.

• CCSSO and the NGA Center are playing a key role in facilitating a series of conversations with leaders of the state consortia that already had formed to seek Race to the Top funds. We anticipate these discussions will continue on how best to come to an agreement on common action on this important issue.

Background Information for Math

Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report Adding It Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Understanding Mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student’s mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as \((a + b)(x + y)\) and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as
expanding \((a + b + c)(x + y)\). Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

**Grade Level Overview for Math**

The standards themselves do not dictate curriculum, pedagogy, or delivery of content. In particular, states may handle the transition to high school in different ways. For example, many students in the U.S. today take Algebra I in the 8th grade, and in some states this is a requirement. The K-7 standards contain the prerequisites to prepare students for Algebra I by 8th grade, and the standards are designed to permit states to continue existing policies concerning Algebra I in 8th grade.

**Kindergarten**

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

**Grade 1**

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

**Grade 2**

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

**Grade 3**

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

**Grade 4**

In Grade 4, instructional time should focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

**Grade 5**

In Grade 5, instructional time should focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and
developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.

Grade 6
In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

Grade 7
In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Grade 8
In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Mathematics Standards for High School
The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by (+), as in this example:
(+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers). All standards without a (+) symbol should be in the common mathematics curriculum for all college and career ready students.
Standards without a (+) symbol may also appear in courses intended for all students.
The high school standards are listed in conceptual categories:
• Number and Quantity
• Algebra
• Functions
• Modeling
• Geometry
Background Information for ELA & Literacy

Standards for ELA & Literacy

The Standards comprise three main sections: a comprehensive K-5 section and two area-specific sections for grades 6-12, one for ELA and one for history/social studies, science, and technical subjects. Three appendices accompany the main document. The first one contains supplementary material on reading, writing, speaking and listening, and language as well as a glossary of key terms. The second one consists of text exemplars illustrating the complexity, quality, and range of reading appropriate for various grade levels with accompanying sample performance tasks. The third one includes annotated samples demonstrating at least adequate performance in student writing at various grade levels.

Each section of the standards is divided into strands: K-5 and 6-12 ELA have Reading, Writing, Speaking and Listening, and Language strands; the 6-12 history/social studies, science, and technical subjects section focuses on Reading and Writing. Each strand is headed by a strand-specific set of College and Career Readiness (CCR) Anchor Standards that is identical across all grades and content areas.

Standards for each grade within K-8 and for grades 9-10 and 11-12 follow the CCR anchor standards in each strand. Each grade-specific standard corresponds to the same-numbered CCR anchor standard. Each CCR anchor standard has an accompanying grade-specific standard translating the broader CCR statement into grade-appropriate end-of-year expectations.

Additional detail regarding each section is provided below:

Reading

The standards mandate certain critical types of content for all students, including classic myths and stories from around the world, foundational U.S. documents, and seminal works of literature. The standards appropriately defer the many remaining decisions about what and how to teach to states, districts, and schools.

Writing

The Standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types of writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and narratives.

Speaking and Listening

Flexible communication and collaboration including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.
Language

The vocabulary standards focus on understanding words and phrases, their relationships, and their nuances and on acquiring new vocabulary, particularly general academic and domain-specific words and phrases. The Language standards include the essential "rules" of standard written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives.

Media and technology

Just as media and technology are integrated in school and life in the 21st century, skills related to media use (both critical analysis and production of media) are integrated throughout the standards.

For the entire common cores standards document visit www.corestandards.org