

MEETING COMMON CORE TECHNOLOGY STANDARDS

Strategies for Grades 9-12

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Introduction

Have you ever found yourself sitting in a meeting wondering, “How am I ever going to change all my lessons to fit the new Common Core State Standards?” At that moment, you also realize your district wants you to integrate the latest digital-age technology, and that has you asking yourself, “Where will I get this technology? Will it be provided for me, or am I responsible for purchasing and providing the technology?”

All of this might seem overwhelming—what is a teacher to do? First, you might turn to your teammates and colleagues for help and support. Perhaps your district provides current technology development for staff on a regular basis and has instructional coaches to help teachers chart this new territory, planning new lessons, bringing in resources, and infusing technology. In reality, most districts don’t have all of this support. Yet teachers are especially in need of technology when considering their clientele: students.

Until recently, every state was doing their own thing when it came to standards. The Common Core State Standards (CCSS) is a U.S. education initiative seeking to bring diverse state curricula into alignment with each other by following the principles of standards-based education reform. The CCSS is sponsored by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO), and a vast majority of the 50 U.S. states are members of the initiative. So, if you are in a Common Core state, there are big changes happening.

Even if you're in a state that's not adopting Common Core, there is a high likelihood your curriculum will soon look very similar to the CCSS initiative.

We, as coaches, have an important role in helping you, the teachers, and your students during this transition. Our hope is that you are in a district that provides high-quality professional learning experiences regularly to help teachers understand the shift from existing state standards to the CCSS. Professional development, along with this book and its resources, will help you identify the changes you will need to make to guide your instruction using CCSS with technology and support you in transferring new knowledge and skills to the classroom. It is a large task, but focusing on specific goals for student learning utilizing the CCSS with technology will have a positive effect on student achievement. Moreover, it will improve your teaching.

CCSS were designed to prepare K–12 students for college and career success in the areas of English language arts, math, science, and social studies. CCSS defines the knowledge and skills students should have in their K–12 education, with an emphasis on learning goals as well as end-of-year expectations.

Most states have had English language arts and math standards in place for a few years. However, these standards vary, not only in coverage but also in levels of rigor. CCSS is very explicit about what is expected of students at each grade level. Students, parents, teachers, and school administrators can now work together toward common goals. CCSS will be consistent from school to school among states choosing to adopt the standards. If students or teachers transfer to different schools, they will all be assured that learning expectations will be the same. Any student, no matter where they live within a Common Core state, can be assured that they will be able to graduate from high school, get ready for college, and have a successful career.

The standards first launched in June 2009. State leaders from the CCSSO and NGA developed them together with parents, teachers, school administrators, and experts from across the country. Both national and international research and evidence informed development of the standards. After public comment, organizers released the final version of the CCSS in June 2010.

The CCSS were written in a clear, understandable, and consistent manner to align with college and work expectations. These standards contain rigorous content, as well as an application of knowledge through higher-order skills. CCSS are evidence based, and they build on the strengths and lessons of current state standards. Writers of CCSS also gathered information and advice from top-performing countries to ensure that U.S. students are prepared to succeed in a global economy and society. Here is a helpful link from the Common Core State Standards Initiative's **"About the Standards"** page: (<http://tinyurl.com/26f7amp>).

Transition to the Common Core will be a challenging task for your students as well as for you. With the implementation of these new standards, students will be expected to become self-directed and critical readers, writers, and thinkers. At the same time, you will need to make adjustments. In fact, you will need to shift your entire instructional practice.

Shifting your instructional practice will require a great deal of work and commitment, but this will all be well worth the effort for both you and your students. By breaking things down into small steps, the transition will seem less overwhelming.

This book is part of a collection of four books designed to help teachers connect technology to the Common Core in their classrooms. We learned how to do this by teaching together, and we have more than 85 years of combined teaching experience. As teammates, we worked with students, teachers, and administrators to integrate technology in the same school district. Our hope is that you will think of this book as your coach, because we can't be with you personally. We hope to show you how to integrate the newly embedded tech-related language found within the standards into your everyday curriculum.

In Chapter 1, we address some of the issues that your students face and discuss how important it is to tailor their learning experiences. Today's students are the first generation to truly grow up in the age of the internet, complete with emailing, texting, instant messaging, social networking, tweeting, and blogging. Teaching this new generation of children, teenagers, and young adults can be challenging because of how digital technology has affected their brains and behaviors. The Common Core curriculum has kept this new generation of students in mind, and so will we.

In Chapter 2, we explore the importance of engaging and educating parents. We follow this up with a discussion in Chapter 3 about the equipment you need to teach to the standards, and we show you how to address the roadblocks that stand between you and this technology. There are always roadblocks that educators commonly face, and we hope to show you how to get around them effectively so that you—and your students—can succeed. We should also mention that although we are sharing many tools and resources with you, we are not affiliated with any company. The programs, apps, and websites listed in this book are simply those that we feel support the standards.

In Chapter 4, we discuss effective staff development, and we explain in Chapter 5 how the CCSS is organized. Chapter 6 takes a deeper look at the specific standards for the grade level you teach. With these standards in mind, we show you how to begin and offer several classroom-tested lesson ideas in Chapters 7–9 that will ensure your students are satisfying the tech-related benchmarks outlined in the CCSS.

We realize that technology is constantly changing and that digital tools come and go. To make certain that you continue to have the most current resources at your fingertips, visit **our website** (<http://tinyurl.com/oexfhcv>). The website password for the 9-12 book is: 9MCCTS12. There, you will find an updated list of the apps, software, and websites mentioned in this book.

Let's begin by taking a closer look at today's generation of tech-savvy students and the skills they bring to the classroom.

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Chapter 1

Today's Students

A two-year-old taking a selfie? Seven-year-olds tweeting? No doubt about it, today's students come to school knowing more technology than ever before. New educational research suggests that offering a variety of learning opportunities, including lots of technology options, may be the best way to engage today's generation of learners. Educators need to respond to this generation and address their unique learning needs. We, the authors, believe this so passionately that we think a chapter about this subject is a must in any book about teaching children in the digital age. Technology must be made available to students. Technology must become ubiquitous.

The CCSS are designed to bring school systems into the new century. They are designed with the tech-savvy child in mind. Actually, the standards are designed with their future workplace in mind. That is the driving force behind the technology we see in the standards and why teaching to your students' future needs is extremely important. Please keep this mind as you read this chapter.

Who Are Your Students?

The students you now have in your classroom grew up using digital technology and mass media. According to Debra Szybinski, executive director at New York University's Faculty Resource Network, (<http://tinyurl.com/pqwr7va>), this generation is:

... a generation characterized by some as self-absorbed, attention-deficit-disordered, digital addicts who disrespect authority and assume that they can control what, when, and how they learn, and by others as smart, self-assured, technology wizards, who follow the rules, and who are on their way to becoming the powerhouse generation. Clearly, this is a generation like no other, and that has posed an entirely new set of challenges both in and out of the classroom for faculty members and administrators alike.

Some of you are part of this younger generation. If so, you were the first to truly grow up in the age of the internet: emailing, texting, instant messaging, and social networking. Yet the current generation is ever changing. Those born even 15 years ago did not have technology so pervasive that it was with them 24/7. Many students entering school now are completely immersed in technology outside of school.

Ironically, at many schools, there is a disconnect to students' real lives and their way of learning. Schools are often islands of 20th-century thinking in a 21st-century world. Schools must do a better job of reaching the current generation of students; they need to respond to and address students' unique learning needs. Technology needs to be constantly available to students at school.

What Does This Generation Know and Do?

Many children entering kindergarten now have access to desktop computers, smartphones, tablets, and/or laptops at home. These children begin using all or most of these devices by the time they are three years old. Whether you go to playgroups, parks, or wherever, you're likely to see young children who are working on their parents' tablets or smartphones (or begging to use them!). These students come to us with skills that include (but are not limited to) swiping to work an app; navigating a mouse to play computer games; operating their own electronic devices, such as children's learning tablets, handheld learning devices, and interactive video games; and hunting and pecking on the keyboard to send emails. Also, our tech savvy-students can take videos and photos using a tablet or smartphone, as well as converse with someone by texting, blogging, and messaging. Most have been exposed to the internet and understand that they can find almost any kind of information there.

Because they have so much information at the touch of a button and constant stimulation around them, this generation is often attempting to multitask. It makes sense to them to watch TV, send a text, and find out what the weather will be all at the same time!

Some say that the current generation has hovering parents and a sense of entitlement. While this may be taken as a negative, having parents who are involved with their children and their children's school is a good thing, as it strengthens the home-school connection. Students who have parents who are involved in their academic life can be better students, and they are less afraid to try new things. Educators need to recognize these traits and use them to help students reach their maximum potential.

Being social is very important to the students in this tech-savvy generation. They are certainly the "in touch" generation, with immediate access to texts, emails, social networking sites, and even the sound of a human voice at the other end of the line. This generation is lost when their smartphone or tablet breaks down; they feel "cut off from the world" when they don't have instant access to the internet.

How Has Technology Affected Students' Minds?

By the time they're in their 20s, today's students will have spent thousands of hours surfing the internet and playing video games. This vast amount of screen time seems to be shortening their attention spans. At a time when their brains are particularly sensitive to outside influences, excessive screen time affects the way they learn and absorb information.

Furthermore, this generation does not read books to find information. Online search engines are prevalent in providing all of the information they need quickly, without having to go through a book from cover to cover. With access to an overabundance of information, they need to be skilled hunters who know how to sift through data quickly and efficiently. This new learner doesn't necessarily read from left to right or from beginning to end. Visuals help today's students absorb more information than they do from straight text. Thus, students become better scanners, a useful skill when confronted with masses of online information in a world that's full of noise and multiple stimulations. So, most modern students have learned to block out distractions while they focus on the task at hand.