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# Introduction: Building the NOW Classroom

In the perpetually connected 21st century world, teaching and learning lead, but our students need new skills to prepare for their future inside and outside the classroom. We won't find these new skills in dated lesson plans but in adapting our teaching and learning methods to actively engage this connected generation, offering students a voice and choice in how they learn.

As teachers, we want to work in schools filled with magical teacher-student partnership classrooms. In these classrooms, students own their data, and they set individual and group goals based on the projects they are working on. Looking around these classrooms, you see what we call *messy learning* or *organized chaos*. Think of the vibe of a busy coffeehouse, everyone chatting or working independently, depending on each person's goals. Digital devices are everywhere, but so are collaboration and all types of communication as everyone gathers for different goals.

Like in a coffeehouse, when you walk into a magical classroom, you feel the energy as all students are laser focused on their personal learning targets and as they collaborate with each other. The teacher has set high expectations for each student, and he or she continuously monitors data using a variety of technology interfaces. Parents and other professionals are

part of the communication loop with access to goal-focused data. We call these magical classrooms *NOW classrooms*. We selected that term because our students deserve to thrive in rich learner-centered classrooms *now*, not in a few months or years. We believe schools are ready to create this type of NOW classroom, typified by technology-supported teaching and learning, and the evidence we've seen bears this belief out. Our goal with this book and this series is to help you create them. We believe teachers and instructional coaches can make this shift even with the youngest learners, and we share that in this K–2 book of the *NOW Classrooms* series.

The central theme of this book and series centers on how teachers can use digital devices to support their primary focus on teaching and learning, offering students a voice and choice in how they learn. We repeat this critical message throughout the book as we concentrate on learning goals rather than on any specific app, website, or device. We filled this book with instructional strategies and lessons that work with technology in the hands of teachers and students. To that end, the lessons in this book use digital devices as educational accelerators, but each lesson specifically ties to an academic outcome. Indeed, this book specifically shows you how academic skills and goals must come before any technology tool, app, or website.

Whether the task at hand uses paper and a pencil or a technology device and digital content, a specific learning goal and purpose should always remain at the core. We don't want to see devices in students' hands when they do low-level learning tasks, or something we call *drill and kill*. Drill and kill misuses technology, and it happens when we focus on the tool or app instead of the learning outcome. As a K–2 teacher or leader, you should concentrate on using technology to facilitate the sort of magical classroom experiences that mark a stark departure from the old days of the computer lab.

## Abandoning the Computer Lab Model

Historically, elementary classes isolated technology from instruction. In this old model, the classroom teacher drops off

his or her students at an assigned time each week, and someone else teaches technology. My, how things have changed.

Just as all teachers teach reading, classroom teachers now teach technology. The 21st century model of using technology in the classroom starts with the learning goals and then sees if and how technology will enhance the learning experience. The lessons we created for this book will show you ways of using technology to help facilitate learning goals so that you accomplish both academic and technology learning goals at the same time, because teaching time and learning time are precious in the classroom. We want to put technology devices in students' hands not to keep students busy but instead to help them focus on learning outcomes.

You may ask, "What does true technology engagement look like?" This book answers that question by demonstrating the opposite of technology misuse. It features students using technology to create, collaborate, explore, investigate, and share their creations beyond classroom walls. This book structures critical thinking and problem solving into every lesson. It includes meaningful lessons with purposeful technology uses that directly tie into International Society for Technology in Education (ISTE) 2016 Standards for Students. ISTE (2016) education technology experts developed the following seven standards for students:

1. Empowered learner
2. Digital citizen
3. Knowledge constructor
4. Innovative designer
5. Computational thinker
6. Creative communicator
7. Global collaborator

Each chapter in this book references at least one of these standards and connects them to the lesson topics we explore in that chapter. In addition to these ISTE student standards, when we think about engagement and our learning targets, we must think about the important skills of what the Partnership for 21st Century Learning (2015) calls the *four Cs*: (1) communication, (2) collaboration, (3) critical

thinking, and (4) creativity. The four Cs, which you can learn more about at [www.p21.org](http://www.p21.org), make up a critical part of 21st century learning.

We often think about the future jobs for which we are preparing our students, and, although we don't necessarily yet know what those jobs are, we do know that our students will need the four Cs. To better understand them, take a couple of minutes to reflect on how they break down into the super skills listed in Table I.1.

**Table I.1: The Four Cs and Super Skills of the 21st Century**

Four Cs	Super Skills
<b>Communication</b>	Sharing thoughts, questions, ideas, and solutions
<b>Collaboration</b>	Working together to reach a goal—putting talent, expertise, and smarts to work
<b>Critical Thinking</b>	Looking at problems in a new way; linking learning across subjects and disciplines
<b>Creativity</b>	Trying new approaches to get things done, which equals innovation and invention

*Source: Partnership for 21st Century Learning, n.d.*

As educators, we need to create learning opportunities for learners of all ages that emphasize academic content and the super skills inherent in the four Cs. Look for the four Cs throughout the lessons in this book. Our young learners need these skills for their years of schooling ahead and for their future workplace success.

## Using This Series

This book is part of the five-book *NOW Classrooms* series, all organized around grade-level-appropriate themes adapted from the 2016 ISTE Standards for Students. The series includes the following five titles.

1. *NOW Classrooms, Grades K–2: Lessons for Enhancing Teaching and Learning Through Technology*

2. *NOW Classrooms, Grades 3–5: Lessons for Enhancing Teaching and Learning Through Technology*
3. *NOW Classrooms, Grades 6–8: Lessons for Enhancing Teaching and Learning Through Technology*
4. *NOW Classrooms, Grades 9–12: Lessons for Enhancing Teaching and Learning Through Technology*
5. *NOW Classrooms, Leader’s Guide: Enhancing Teaching and Learning Through Technology*

Instructional coaches might use all five books in the series for project ideas at all grade levels and for leadership strategies. We scaffolded the lessons across the series of books so they all flow together, and we organized all the grade-level books in this series in the same way to make it easy for all readers to see how the ideas link together. We believe this series will save you hours of preparation time.

## Using This Book

The primary audience for this book is K–2 classroom teachers with access to technology tools, but instructional coaches and administrators can also use the book’s lessons to support the students and teachers they lead. Having access to digital devices in your classroom does not mean you need to have a 1:1 environment in which every student gets a device. We want students to collaborate, communicate, and share with each other, so many of this book’s lessons involve grouping students together around a single device. You can also adapt lessons to work in classrooms with limited technology access or those that still use the old computer lab model.

Each of the chapters includes multiple topical sections, each with three lesson levels—(1) *novice*, (2) *operational*, and (3) *wow*, spelling *NOW*. Once we arrived at the three levels, it felt almost like a *Choose Your Own Adventure* book instead of a step-by-step recipe book. Make your lesson selections based on what your students can already do. For example, in chapter 2 of this book, we cover Snapping and Sharing Pictures (page 37). Maybe your students already know how to snap a photo with their device (the novice-level lesson), so you might use the operational lesson, Sequencing Pictures. Students who master the operational lesson can then move on

to the wow lesson, Demonstrating Learning Using Pictures, which applies skills in the novice and operational lessons to create new kinds of products.

Each lesson begins with a learning goal, phrased as an *I can* statement, written in student-friendly language. These statements help students understand the learning goal and make the learning experience purposeful. When students more clearly understand what they can do and where they are going, learning happens. This is important because it means that students are taking ownership of their learning. For example, if another teacher visits the classroom, students can articulate the *I can* statement to explain the lesson to the visitor. We then explain to you what students will learn from the lesson, the tools you can use to make it work, and we provide a stepped process you can follow to accomplish the learning goal. All lessons wrap up with two or more subject-area connections with ideas you can use to adapt the lesson to different content areas, like English language arts and mathematics. Along the way we provide teaching and tech tips in this book’s scholar’s margins to help provide useful insights. Finally, we added discussion questions at the end of each chapter so you can use this book with your team for professional development.

Chapter 1, “Learning Technology Operations and Concepts,” is unique to this book and helps you navigate the addition of digital devices and technology to your classroom. K–2 students are just starting out in technology and school, and you should teach them a few lessons before you dive deep into technology projects so that they understand the functionality of the technology they use. We call these technology fundamentals *technology literacy*. Additionally, we cover some essential classroom *learning management system* (LMS) basics to help students understand how to log in and upload content to personal and shared folders.

Chapter 2, “Embracing Creativity,” has students work with digital images, capture video, and record audio files as they collaborate on projects. You may or may not enjoy the selfie culture, but K–2 students love taking pictures of themselves, and of course, they love sharing. We embed these 21st century skills into the lessons in this chapter.



Chapter 3, “Communicating and Collaborating,” emphasizes communication and collaboration as critical skills for our students. Students will learn 21st century skills that include how to use video to flip learning, how to share appropriately on social media, and how to use live communication tools to connect to local and global audiences.

Chapter 4, “Conducting Research and Curating Information,” presents research and information fluency as critical skills for digital learners. Students will learn how to locate information online and check the information for accuracy. Even our youngest learners need these foundational skills.

Chapter 5, “Thinking Critically to Solve Problems,” focuses on critical thinking, problem solving, and decision making with regard to selecting and using digital tools. It includes developing students’ voice and choice in selecting digital tools to solve problems.

Chapter 6, “Being Responsible Digital Citizens,” covers digital citizenship. Teachers always try to protect students physically and emotionally; now this extends to helping students stay safe online. The lessons in this chapter focus on how teachers can help young students have success learning online and stay safe in a digital world. Students will understand why online safety is important and engage in age-appropriate lessons about online stranger danger, cyberbullying, protection of personal information, and intellectual property.

Chapter 7, “Expanding Technology and Coding Concepts,” helps you foster 21st century college and career readiness in your students by supporting your youngest learners as they begin understanding the computational thinking concepts that drive how the digital world functions. These lessons introduce students to the basics of computer coding and the language behind their favorite games.

In the appendix, we include an alphabetical list of technology terms and resources. This includes a comprehensive list of apps, websites, and technology tools referenced in this book along with a description of each resource.