

INTRODUCTION

We are living in the 21st century, but our schools have not yet arrived. When we think of education, we usually think of what we knew as school – the way it has always been.



So what is 21st century education? It is a term that is frequently used and seldom understood. It is bold. It breaks the mold. It is flexible, creative, challenging, and complex. It addresses a rapidly changing world filled with fantastic new problems as well as exciting new possibilities. Fortunately, there is research supporting an increasing number of 21st century schools. We have living proof, inspiring examples to follow, in schools across the United States. These schools vary, but are united in the fundamentals of 21st century education.

WHAT IS 21ST CENTURY EDUCATION?

“A teacher with 21st-century skills and tools is one who can integrate strong communication skills with manageable technology skills,” says **Matthew Braun**, a seventh-grade math teacher in the School District of Philadelphia.

“[It’s] someone who can creatively problem solve both people and equipment-related obstacles to learning. A teacher possessing 21st-century skills fearlessly seeks out methods and tools—technology—that will enhance not only their students’ learning—
but their own personal growth as well.”

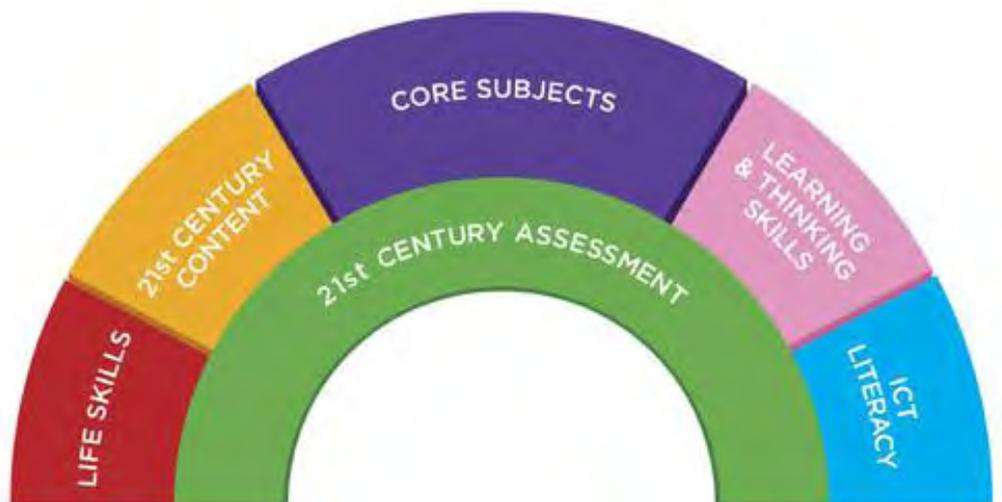


21st CENTURY SKILLS

21st century skills are learned through curriculum, which is interdisciplinary, integrated and project-based. Additionally, learning to collaborate with others and connect using technology are essential skills in a knowledge-based economy.

21st century skills can be separated into four major categories:

1. **WAYS OF THINKING:**
Creativity, critical thinking, problem-solving, decision-making and learning
2. **WAYS OF WORKING:**
Communication and collaboration
3. **TOOLS FOR WORKING**
Information and communications technology and information literacy
4. **SKILLS FOR LIVING IN THE WORLD**
Citizenship, life and career, and personal and social responsibility



iKIDS: DIGITAL NATIVES

One of our goals is to help students become iKids and truly global citizens.

In many countries, today's students are referred to as "**digital natives**," and today's educators as "**digital immigrants**." Teachers are working with students whose entire lives have



been immersed in the 21st century media culture. Today's students are **digital learners** – they literally take in the world via the filter of technology devices: cell phones, handheld gaming devices, iPads, and laptops they take everywhere, plus the computers, TVs, and game consoles at home. A survey by the Henry J. Kaiser Family Foundation found that young people (ages 8-18) mainline electronic media for more than six hours a day, on average. Many are multitasking – listening to music while surfing the Web or instant-messaging friends while playing a video game.

Even toddlers utilize multimedia devices and the Internet with tools such as handheld video games like Leapster and web sites such as www.PBSkids.org and www.Nick.com. Preschoolers navigate these electronic, multimedia resources on games in which they learn colors, numbers, letters, spelling, and more complex tasks such as mixing basic colors to create new colors, problem-solving activities, and reading.

However, as Dr. Michael Wesch points out, although today's students understand how to access and utilize these tools, many of them are used for entertainment purposes only, and the students are not truly media literate.

“SCHOOL,” “TEACHER,” “LEARNER” AND “CURRICULUM” FOR THE 21ST CENTURY

How should education be structured to meet the needs of students in the 21st century world?
How do we now define “**School**,” “**Teacher**,” “**Learner**” and “**Curriculum**?”

Schools in the 21st century will be provide project-based curriculum for life aimed at engaging students in addressing real-world problems, issues important to humanity, and questions that matter.

This is a dramatic departure from education of the past. It is abandonment, finally, of textbook-driven, teacher-centered, paper and pencil schooling. It means a new way of understanding the concept of “knowledge”, a new definition of the “educated person”. A new way of designing and delivering the curriculum is required.

We offer the following new definitions for “**School**”, “**Teacher**” and “**Learner**” appropriate for the 21st century:

- **Schools** will go from ‘buildings’ to ‘nerve centers’, with walls that are porous and transparent, connecting teachers, students and the community to the wealth of knowledge that exists in the world.”



- **Teacher** - From primary role as a dispenser of information to orchestrator of learning and helping students turn information into knowledge, and knowledge into wisdom.

The 21st century will require knowledge generation, not just information delivery, and schools will need to create a “**culture of inquiry**”.

- **Learner** - In the past a learner was a young person who went to school, spent a specified amount of time in certain courses, received passing grades and graduated. Today we must see learners in a new context:

First – we must maintain student interest by helping them see how what they are learning prepares them life in the real world.

Second – we must instill curiosity, which is fundamental to lifelong learning.

Third – we must be flexible in how we teach.

Fourth – we must excite learners to become even more resourceful so that they will continue to learn outside the formal school day.”



So what will schools look like, exactly? What will the curriculum look like? How will this 21st century curriculum be organized, and how will it impact the way we design and build schools, how we assess students, how we purchase resources, how we acquire and utilize the new technologies, and what does all this mean for us in an era of standardized testing and accountability?



Imagine a school in which the students – all of them – are so excited about school that they can hardly wait to get there. Imagine having little or no “discipline problems” because the students are so engaged in their studies that those problems disappear. Imagine having parents calling, sending notes, or coming up to the school to tell teachers about the dramatic changes they are witnessing in their children: newly found

enthusiasm and excitement for school, a desire to work on projects, research and write after school and on weekends. It is possible. It has happened, and is happening, in schools across the country. There is growing evidence of schools everywhere having the same results when they implement a 21st century curriculum.

21st CENTURY CURRICULUM

Twenty-first century curriculum has certain critical attributes. It is **interdisciplinary**, **project-based**, and **research-driven**. It is connected to the community – local, state, national and global. Sometimes students are collaborating with people around the world in various projects. The curriculum incorporates higher order thinking skills, multiple intelligences, technology and multimedia, the multiple literacies of the 21st century, and authentic assessments. Service learning is an important component.

The classroom is expanded to include the greater community. Students are self-directed, and work both independently and interdependently. The curriculum and instruction are designed to challenge all students, and provides for differentiation.

The **curriculum** is not textbook-driven or fragmented, but is thematic, project-based and integrated. Skills and content are not taught as an end in themselves, but students learn them through their research and application in their projects. Textbooks, if they have them, are just one of many resources.

Knowledge is not memorization of facts and figures, but is constructed through research and application, and connected to previous knowledge, personal experience, interests, talents and passions. The skills and content become relevant and needed, as students require this information to complete their projects. The content and basic skills are applied within the context of the curriculum, and are not ends in themselves.

Assessment moves from regurgitation of memorized facts and traditional pen and paper exams to students demonstrating their understanding through application in a variety of contexts. Real-world audiences are an important part of the assessment process, as is self-assessment.



CONCLUSION

It is important to avoid simplistic “either or” thinking about 21st century skills. Factual knowledge, the ability to follow directions, knowing how to find a right answer when there is one—all of these things will still be important in the 21st century. The key is to develop a curriculum that teaches students those things as well as how to apply what they learn to solve real world problems and helps them to develop the broader competencies increasingly important for success in an ever more complex and demanding world.

WHAT IS 21ST CENTURY EDUCATION?

Kristine Petricas is an executive at Daydream Education, an education media company. “My working definition is as follows: **A fully integrated curriculum** that includes technology tools that deliver, enhance and create passionate, accountable individuals who use problem-solving skills and resources to **transition from a learning environment to a working environment, seamlessly.**”