

# Defining 21<sup>st</sup> Century Skills

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With one decade of the century under our belts, it seems surprising that educators, scientists, and parents continue to struggle to define those skills that should be taught in K-12 schools to prepare students for their future in the Information Age. There seem to be as many opinions as there are students, but more and more often, the phrase “21st century skills” is used to identify a specific and progressive list of skills that are necessary to ensure a successful future for today’s students.

Depending on who’s defining these skills, they have different names and subgroups, but the common threads are

## **CREATIVITY AND INNOVATION**

The ability to apply existing knowledge to discover new and innovative solutions, products, and ideas; and to create original works for personal or group expression.

## **COMMUNICATION AND COLLABORATION**

The ability to communicate ideas and concepts effectively to individuals and to groups through a variety of media; the skills to interact with peers, contribute to projects, and engage with individuals across the globe; and the knowledge to utilize technology-driven tools to share information.

## **INFORMATION, MEDIA, AND RESEARCH LITERACY**

The ability to use digital tools to locate, filter, manage, interpret, validate, and ethically act on information based on reliability and appropriateness; and the ability to make informed decisions, process data and report results through multiple outlets and networks.

## **CRITICAL THINKING, PROBLEM SOLVING, AND DECISION MAKING**

Problem identification, formulation, and solution; intellectual curiosity; and higher level thinking across multidisciplinary boundaries.

## **FLEXIBILITY AND ADAPTABILITY**

The ability to change direction and focus as new information is received; openness to new processes and innovative procedures as they are developed; and the capability to work with multiple groups across a variety of platforms.

## **INITIATIVE AND SELF-DIRECTION**

Self-motivation and the ability to work independently toward a personal or professional objective or the goals of a group; and the ability to recognize one’s own learning needs.

## LEADERSHIP AND RESPONSIBILITY

Demonstration of teamwork and leadership; adapting to varied roles and responsibilities; working productively with others; exercising empathy; respecting diverse perspectives; and accepting accountability for individual actions and decisions.

## DIGITAL CITIZENSHIP

Full participation in the digital society through the exchange of information; responsible and ethical use of digital tools and property; self-protection of personal information and property; the use of social media; and the display of appropriate digital etiquette.

## GLOBAL AND CULTURAL AWARENESS

Learning and working collaboratively with individuals from diverse cultures, religions and lifestyles with mutual respect; creating the space for an open dialogue in personal work and community contexts; understanding the culture of other global citizens; and facilitating an understand of and addressing global issues.

## TECHNOLOGICAL LITERACY

The understanding and use of technology as a learning, communication, and information vehicle; the knowledge to choose and use appropriate, effective applications; and the ability to adapt to new technologies as they become available.

## FINANCIAL, ECONOMIC, AND BUSINESS LITERACY

Increasing the understanding of financial principles as they apply to individuals and businesses in order to enhance accountability, workplace activity, and career choices; knowledge of the digital marketplace; and the development of entrepreneurial skills.

## MASTERY OF CORE SUBJECTS

As in the last century, mastery of core subjects including language arts, world languages, arts, math, economics, science, geography, history, and government provide the foundation on which 21st century skills rest.

Many critics contend that, with a few technology-based exceptions, these are the skills that we have been trying to teach children for decades, yet in order to meet the demands of higher education, an increasingly challenging business landscape, and a globally competitive workforce, U.S. schools must bridge the profound gap that exists between a K-12 education and real-world communities in the Digital Age.

There is a widespread misconception that 20th century skills are in some way obsolete. A simplified list follows:

- ▶ Basic understanding of reading, writing, arithmetic, and essential core content
- ▶ The ability to communicate through different channels
- ▶ Memorization and quick recall of miscellaneous facts
- ▶ The ability to work cooperatively in groups
- ▶ The ability to follow specific directions
- ▶ Working knowledge of several specifically preselected topics

While a thorough understanding of core concepts is an essential foundation for students, as educators we must go beyond the basics into the real world. The differences are worth noting.

With facts, statistics, and opinions available through a simple Internet search, the need to memorize and store information becomes less relevant in the 21st century. Conversely, the ability to access and utilize this information becomes more and more important. Underlying concepts in math and science, while critical, become the basis for students in the Information Age to find creative solutions to the new challenges we face as citizens of the planet, and to do this in conjunction with learners as far away as the other side of the globe.



In the 20th century, literacy was broadly defined as having the ability to read, write, and communicate. The Internet and other electronic tools have changed not only the channels, but the most effective and efficient ways for people to send and receive messages. From email to text messages and blogs to self-directed video, people are communicating in new ways and at a remarkable speed. Additionally, the computer and smart devices allow us a window to the world, through which we can observe various cultures. They have shortened the distance, via technology, between friends and collaborators.

As we move forward at the speed of technology, it's important to keep what serves today's students, while continually adapting to the rapidly changing world around us. For today, that includes understanding core educational content, the ability not only to use technical devices, but to understand the importance of learning, and the ability and the will to continually learn new things in response to an ever-evolving planet.

The question then, in many instances, changes from "what?" to "how?", and the participants in the discussion can now be worlds away.

ODYSSEYWARE online curriculum embraces 21st century skills and teaches students how to direct their own journey in learning. With interactive media embedded in the lessons, students have the opportunity to use technology daily and to learn the benefits and the pitfalls that come with the use of electronic tools. A rigorous curriculum, it helps to build a strong foundation for innovative thought and real world problem solving. It brings learning into the Digital Age.