

The Future is Now – Tom Scarice, Assistant Superintendent

The emergence of very sophisticated and revolutionary information and communication technologies (ICTs) has forever changed the way we work, play and communicate. The seismic waves of the “information age” can be felt each time we turn on the news, “log on”, “tweet”, or “text”. Even for the nostalgic among us, memories are now archived on YouTube, Flickr, and devices no larger than a thimble. The world has become as small as the speed of information traveling through fiber optic cables, or even in a “cloud” halfway across the planet. Unprecedented access to information is no more challenging than simply finding a place to log on. As a result, countless new players freely enter a fiercely competitive marketplace motivated by new opportunities and an environment that rewards creativity, innovation, and critical thinkers.

What types of skills will children need to succeed in today’s world? Which skills are most important? What can be done to help schools meet an educational challenge never seen before? Does the traditional promise of “work hard, get good grades, go to a good college and get a good job” still apply?

Many professional organizations have attempted to codify “21st Century Skills”. In 2003 the North Central Regional Education Laboratory (NCREL) and the Metiri Group released the “enGauge” framework, emphasizing digital literacy, inventive/higher-order thinking, high productivity, and effective communication. The Partnership for 21st Century Skills, a collaborative venture of public and private organizations, published a framework for 21st Century Skills in 2006 that encompassed core academic subjects, learning and thinking skills, ICT literacy, and life skills. In addition, the International Society for Technology in Education (ISTE) revised its student standards for technology in the curriculum in 2007, shining a spotlight on creativity, innovation, communication, collaboration, research, critical thinking, problem solving, digital citizenship, and technology operations. Economists have also joined the call to identify crucial components of 21st Century Skills. In their 2004 book, *The New Division of Labor: How Computers are Creating the Next Job Market*, economists Frank Levy and Richard Murnane (2004) state that “declining portions of the labor force are engaged in jobs that consist primarily of routine cognitive work and routine manual labor—the types of tasks that are easiest to program computers to do. Growing proportions of the nation’s labor force are engaged in jobs that emphasize expert thinking or complex communication—tasks that computers cannot do.”

Some of the skills necessary for the 21st century are “perennial” skills while others are “contextual.” Collaboration, for example, is an interpersonal skill that has been valued in the workplace for centuries. However, this “perennial” skill distinguishes itself in the 21st century by the degree of importance it presents in settings that necessitate sophisticated forms of communication (e.g. virtual teams, ICT mediated interactions with peers across the world, etc.). In contrast, “contextual” 21st century skills surface not as differences in degree but in kind. For example, the current information-glut society requires effective individuals to access, manage, integrate, and evaluate huge amounts of incoming data while extracting information valuable for decision-making. Biased and incomplete data sources can foil even the most skilled digital citizen. The 21st century requires expert thinkers who can analyze, evaluate, and rapidly filter through seemingly endless data sources.

In order to respond to the emergent need to equip students with the skills necessary for success, perhaps even survival, in a complex, rapidly changing world, conventional K-12 school systems must be proactive and adapt. There is only one place to start.

Assessment is the most powerful determinant of practice in the classroom. We teach what we test and we value what we measure. However, the past decade and the foreseeable future present federal and state initiatives that test for last century's education, and more often than not, what is easiest to measure, rather than what is most important to measure. Current standardized testing emphasizes core academic skills only. In addition, the methodology is disconnected from real-world application and performance. This practice must not be just retooled, a complete transformation is necessary.

In an effort to accelerate the process of transformative assessment and to teach and to measure the acquisition of 21st century skills in its students, the Weston Public Schools are participating in a collaborative project with Columbia University Teachers' College. The goal is to develop and implement a valid and reliable internal assessment framework that measures student achievement of specified, high –priority 21st century skills, competencies, and understandings while also informing and driving classroom instruction and innovation. When complete, this framework will serve as a more valid and worthy measurement of meaningful student learning than the current battery of standardized tests that litter public schools today. But, which skills surface as the most crucial for our children after they depart our schools?

As a starting point, the skills identified by the aforementioned professional organizations can be loosely grouped as follows: critical and creative thinking skills, ICT skills, and interpersonal/intrapersonal skills. The initial objectives of this collaborative project focus primarily on critical and creative thinking skills. These skills represent the capacities to evaluate evidence, analyze and interpret information, notice deeply and carefully, ask probing questions, transfer and apply knowledge, and the abilities to ask "what if?", "why not?", and "how else?". Quite simply, these cognitive skills enable us to identify barriers while simultaneously finding breakthroughs.

The project is grounded in the concept of "cornerstone" assessments, i.e. assessments that serve to measure student learning while simultaneously informing teachers of the most critical student learning outcomes, thereby driving classroom instructional decisions and innovations and anchoring the course of study. We continue, as a profession, to teach what we test and value what we measure. However, this project offers the opportunity to calibrate what we test to the learning outcomes that matter most, while applying thinking skills in real world applications, thereby forgoing the sprint through a prescribed list of routine core academic skills mandated by state or federal bureaucracies using outdated testing methodologies. At last, we can now measure what we value.

The first year of the project will culminate with the development of the 11th grade cornerstone assessment. Subsequent years will drive this project down each grade to the kindergarten level while being developmentally responsive. Such assessments should be challenging and engaging. Contextual application has the power to fasten learners' attention and imagination. Ultimately, by anchoring each grade level, or multiple grade levels with a cornerstone assessment that effectively measures 21st century critical and creative thinking skills, teachers can develop curricula and learning

experiences that layer in the other two areas identified by numerous experts, namely, ICT and interpersonal/intrapersonal skills and competencies. This integration throughout the school year makes the mosaic complete, curricula anchored in rigorous cornerstone assessments that necessitate meaningful and engaging day to day classroom learning experiences rich in ICT competencies with opportunities to master key interpersonal and intrapersonal skills and dispositions.

This is no less than a call to action, for this community and this nation. The approach outlined above cannot be subjected to a “sanding of the edges”. Practice must be transformed. By building on the solid foundation of the Weston Public Schools, this community can be a leader in the type of school reform necessary for our children in a complex world that grows smaller by the day. By all current measures, we have undisputed excellence in our schools. In our commitment to continuous improvement, we have an opportunity to rise to the next level of excellence and deliver a program that meets the unprecedented challenges of this era.