

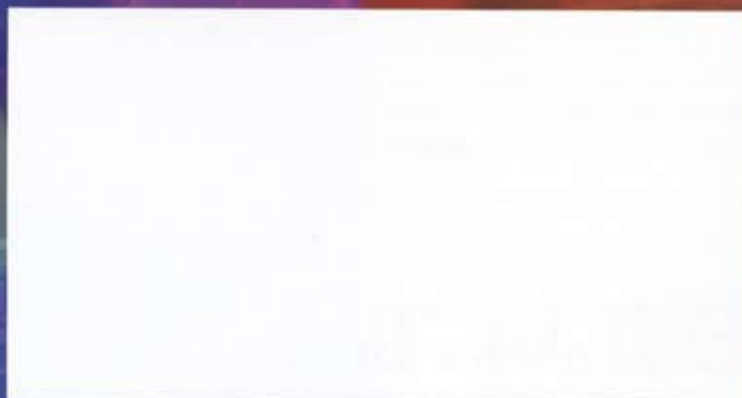
# Middle School Journal

National Middle School Association [www.nmsa.org](http://www.nmsa.org)  
Volume 40 Number 5 May 2009

## Better Futures for Middle Grades Students Begin Today

Preparing for 21<sup>st</sup> Century Life and Work  
Strategies to Help at the Tipping Point

Deferred But Not Deterred  
Rediscovering Substance of Soul



# Middle Schools Preparing Young People for 21<sup>st</sup> Century Life and Work

Ken Kay

A close examination of the battery of evidence and informed analysis about education over the past generation strongly indicates that middle schools are searching for a mission. The labels say it all: “Mayhem in the Middle.” “The Forgotten Middle.” “Stuck in the Middle.” “Muddled in the Middle.”

This lack of clarity is ironic, given the urgency of preparing an emerging generation of young people for the competitive challenges and opportunities of the 21<sup>st</sup> century. The global economy and democratic society that today’s 10- to 14-year-olds will inherit demand a different kind of preparation than that experienced by any previous generation.

Middle schools are uniquely positioned to take ownership of this territory. The middle years are crucial—and often the last best chance—for engaging and motivating students to achieve results that matter. Developing proficiency in 21<sup>st</sup> century skills, along with deep

content knowledge, should be the mission of middle schools and the outcome of middle grades education.

## Redefining rigor for the 21<sup>st</sup> century

All students need a rigorous education to thrive in a complex, connected, and constantly changing world. “Rigor,” however, must be redefined for the 21<sup>st</sup> century. Mastery of core academic subjects is a necessary, but no longer sufficient, credential for postsecondary education workplace, or citizenship readiness. Equally important are competencies in the 21<sup>st</sup> century skills that differentiate the leaders and laggards on the international playing field—the arena in which every industry and individual in advanced nations competes today. These skills (listed in Figure 1) include critical thinking, problem solving, communication, collaboration, creativity, financial and health literacy, and global awareness.

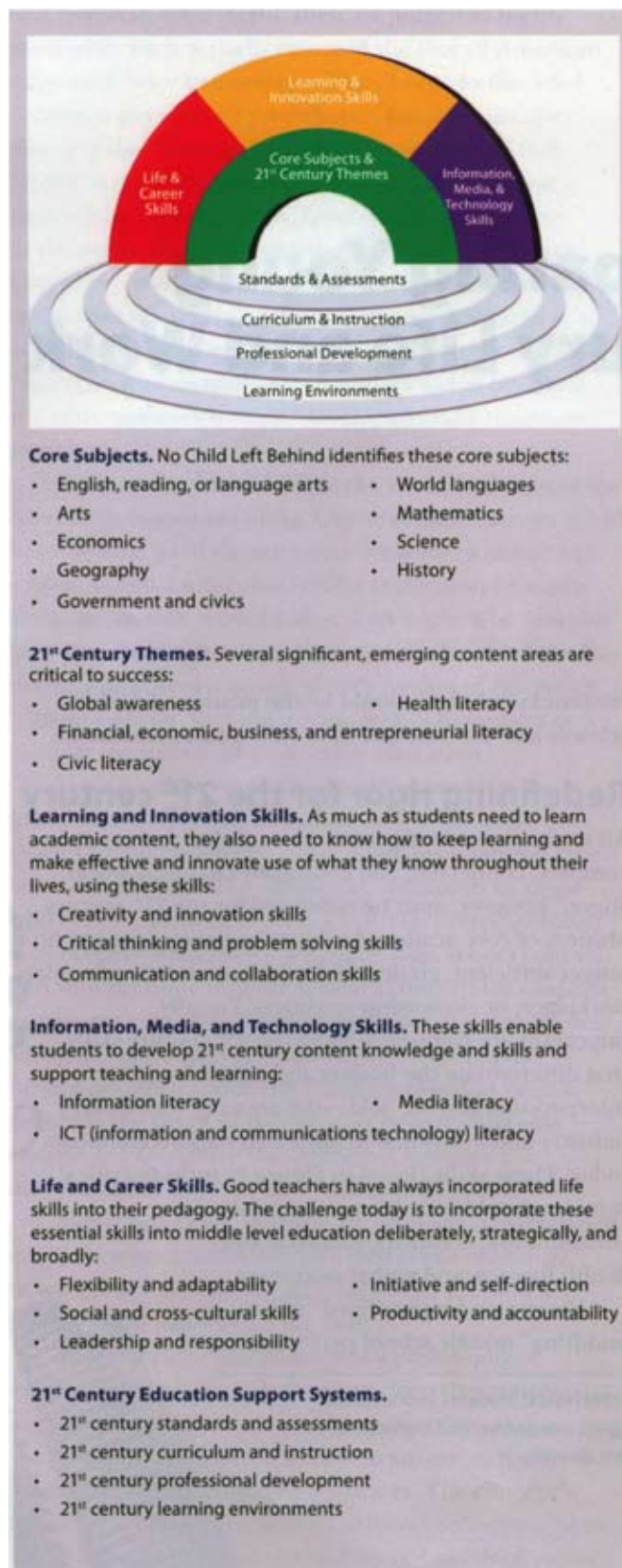
We can no longer afford “fair to middling” middle school performance.

---

**This article reflects the following *This We Believe* characteristics:** Students and teachers engaged in active learning — Curriculum that is relevant, challenging, integrative, and exploratory — Multiple learning and teaching approaches that respond to student diversity



**Figure 1** Framework for 21<sup>st</sup> century learning



There is a much higher calling to which middle schools must aspire—nothing less than the teaching and assessing of the central skills of success in the 21<sup>st</sup> century. Students must leave school with a deep knowledge of academic content *and* with the 21<sup>st</sup> century skills they need to apply their knowledge, work with others, and manage their lives.

“Emphasis on 21<sup>st</sup> century skills promotes learning by doing, talking, and processing in teams, problem solving, expanding the audience for learning, and giving students more choice,” said Mary Jo Conery, assistant superintendent for 21<sup>st</sup> century learning in the Catalina Foothills School District in Tucson, Arizona. “Middle school students are ripe for these kinds of experiences, as they are also developing a sense of identity. They want and need engaging work that stimulates their curiosity, involves them in decision making, provides some autonomy and choice in learning, improves self-regulation, and allows opportunities for creative expression. This kind of learning environment will not only motivate and challenge our adolescent students but aid them in discovering who they are, who they want to be, and prepare them to be productive 21<sup>st</sup> century citizens who will succeed in a rapidly changing world” (personal communication, November 6, 2008).

## The void in the middle

National and state efforts to improve education over the past decade have done little to carve out a singular mission for middle schools. Under No Child Left Behind, elementary schools have a clear mission of getting students ready to learn—a reasonable goal. Specifically, this means developing and improving student proficiency in reading, mathematics, and science. Clearly, foundational knowledge and skills are essential for more advanced learning.

High school reform initiatives, meanwhile, are converging on the clear mission of getting students ready for college or careers, with growing consensus that the requirements for either path are the same: rigorous coursework in core academic subjects and proficiency in 21<sup>st</sup> century skills (see, for example, Achieve, 2008; ACT, 2005; Partnership for 21<sup>st</sup> Century Skills, 2006). Specifically, this means improving student enrollment and achievement in challenging courses, increasing graduation rates, and making diplomas meaningful.

The role of middle schools is less clear. Reinforce and carry on with the basics of reading, mathematics,



and science? Support students in adjusting to the physical, social, emotional, and intellectual transitions that are the hallmark of early adolescence? Give students a taste or a hefty dose of the academic coursework they will encounter in high school?

Middle schools have tried these options—singly and collectively—and, for many students, they are not working. That is not because these efforts are not important, but because there is no galvanizing vision or goal around which to organize standards, curriculum, instruction, assessments, and learning environments.

The fallout is evident. The 2007 National Assessment of Educational Progress found that at least one-third of eighth graders are not prepared for challenging reading and mathematics studies. And American eighth graders do not stack up well on international assessments such as the Programme for International Assessment (PISA) or the Trends in Mathematics and Science Study (TIMSS) compared to their peers in advanced nations. Middle school performance suffers on these assessments, especially PISA, because students do not have the critical thinking and problem solving skills to apply their knowledge to real-world contexts.

The void in the middle has enormous consequences. For many students, this is the point in their schooling when they begin to fall behind academically, lose confidence in their ability to achieve, and become unmotivated and disengaged in school. Students who leave eighth grade with this track record are more likely to struggle in high school and drop out. Even if they stay in school, they are more likely to disregard their learning or try to cover up their academic deficiencies by acting out.

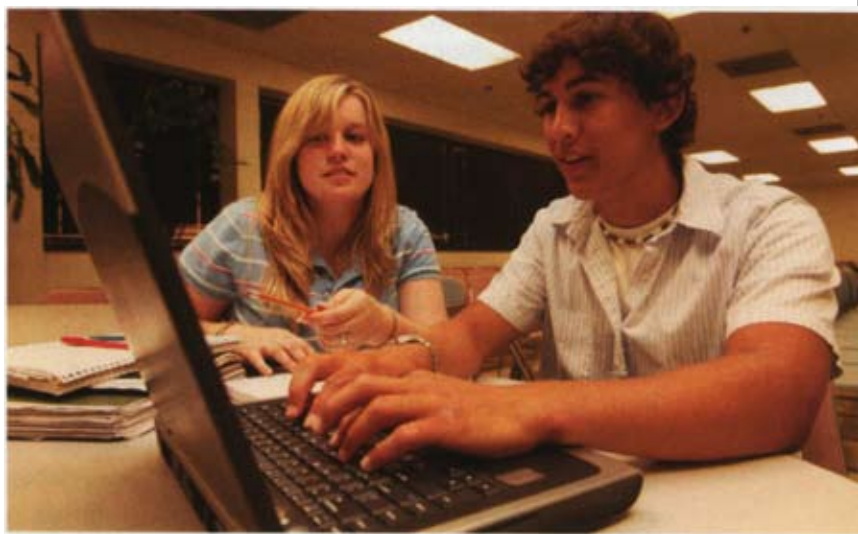
## **Middle schools and 21<sup>st</sup> century skills: A powerful combination—and a great mission**

Middle schools must maximize the opportunity presented in the middle years, which represents fully a third of students' K–12 years. Combining proficiency in 21<sup>st</sup> century skills with core subject knowledge should be at the heart of middle school education. This will turn the tide on stagnant or negative growth in student achievement, stave off boredom and frustration, and prepare students to succeed in higher-level courses in high school. These skills match perfectly the challenges that young adolescents enjoy and are well prepared to tackle.

What are 21<sup>st</sup> century skills? The Partnership for 21<sup>st</sup> Century Skills, an advocacy organization made up of almost 40 education, policy, and business organizations, has spent the last six years identifying and validating the essential skills that all students need to succeed as citizens and workers in the 21<sup>st</sup> century (Figure 1).

These skills represent the collective wisdom of K–12 and postsecondary educators, parents, researchers, employers, and policymakers. Ten leadership states have committed to incorporating these skills into their education systems, and others are using the Partnership's Framework for 21<sup>st</sup> Century Learning to revise their standards and assessments, curriculum and instruction, professional development, and learning environments. With a new administration in the White House, the Partnership and other organizations are pressing for federal support that will help states, schools, and educators implement this framework.

Nationwide surveys of employers and voters show that there is broad support for 21<sup>st</sup> century skills. An overwhelming 88% of voters believe that the nation's schools can—and should—play a vital role in teaching 21<sup>st</sup> century skills (Partnership for 21<sup>st</sup> Century Skills, 2007). Employers across the United States cite the 21<sup>st</sup> century skills of professionalism/work ethic, oral and written communications, teamwork and collaboration, and critical thinking and problem solving as the most important skills that recently hired graduates from high school and two- and four-year postsecondary institutions need (Casner-Lotto & Barrington, 2006). College and university officials believe these skills are important



*Using 21<sup>st</sup> century skills, students collaborate on a project.*

## What do 21<sup>st</sup> century skills look like in middle school?

Students learn 21<sup>st</sup> century skills in the course of learning core subjects. Good teachers already incorporate many of these skills into their classroom pedagogy. Now, it is incumbent on middle schools to teach them comprehensively, intentionally, and purposefully. Here are some examples of how this plays out in the classroom.

- In geography class, students use global positioning software (GPS) to solve a community problem, such as locating the best spot for a park. At Craig Middle School in the Metropolitan School District of Lawrence Township, in Indianapolis, Indiana, students partnered with a local organization to design and create an environmental park on an acre of land adjacent to their school. They developed landscape designs using native plants, voted on the best ideas, investigated the applications and permits required, and developed a budget and fundraising program to turn the site—an abandoned gas station—into a park. This multidisciplinary approach to solving a problem contrasts sharply with traditional geography assignments, such as memorizing the names of state capitals. The project required students to integrate and apply content knowledge in geography, science, math, social studies, and English language arts with 21<sup>st</sup> century skills, which include critical thinking, problem solving, creativity, collaboration and communication skills, and financial and technological literacy.
- In math class, students are challenged to open an online savings account and plan for college. They learn about money management and how important it is to start saving and budgeting when they are

young. They begin to learn financial literacy, ICT literacy, and life and career skills.

- In English or social studies class, students work in groups to gather many newspaper, magazine, and Web images of a current event or issue, using U.S. and international sources. They analyze, discuss, and write about the intended meaning of the images, learning global awareness, critical thinking, collaboration, communication, and media literacy skills. Or, using a shared wiki, blog, or learning management system, students communicate with classes in different regions or countries to share their daily school life, discuss books they are reading, or publish their creative writing.
- In science class, students are challenged to design, build, and test a device for storing headphones to an MP3 player, without the wires getting tangled. They follow the engineering design process (define the challenge; research and brainstorm a solution that fits the constraints; design, build, test and evaluate the device; and redesign if necessary).
- Teams of teachers across disciplines raise students' global awareness in an "international learning laboratory" or "mock United Nations" project. Students research a country, a culture, or a complex issue—in school or on a real or virtual field trip to a museum, for example—then participate in a town hall meeting to express conflicting opinions or beliefs of the perspectives they represent. They use role-playing or simulation activities, learning to listen to others and disagree respectfully.

For more examples and resources, visit [www.21stcenturyskills.org/route21](http://www.21stcenturyskills.org/route21)

for student success as well (see, for example, Association of American Colleges & Universities, 2007; Conley, 2005, 2007).

In 2006, the Partnership released an influential report advocating the infusion of 21<sup>st</sup> century skills into high school reform initiatives (Partnership for 21<sup>st</sup> Century Skills, 2006). Some people inferred from this report that 21<sup>st</sup> century skills are the purview of high schools only, since high school students are closer to entering college or the workforce. Not so. In fact, middle school is the perfect time to begin a full-court press in teaching 21<sup>st</sup> century skills.

Students in the middle grades are developmentally primed for learning 21<sup>st</sup> century skills. They have foundational knowledge and skills on which to build. Global awareness, civic engagement, and health and financial literacy are 21<sup>st</sup> century themes that they will find relevant and challenging. Crucially—and unlike many high school students—they are still impressionable, and they still want to do well in school. Their brains are coming of age for deeper inquiry, abstract thinking, and

exploration of the broader world. They are enthusiastic, curious, and energetic. They are stimulated by creative assignments and turned off by repetitive work. They love to work in groups.

Further, middle school is the period in which students are encouraged to take more responsibility for their own learning. Making 21<sup>st</sup> century skills explicit and transparent will give students clear and compelling aspirations. Around these skills, they can develop their own strategies and share evidence of success—another motivator for this age group—such as portfolios of multidisciplinary and collaborative projects, work experiences, and new assessments of 21<sup>st</sup> century skills.

All of these traits make proficiency in 21<sup>st</sup> century skills a natural mission for middle schools. This mission situates 21<sup>st</sup> century skills exactly where they belong—at the center of the K–12 continuum. It taps into the unmet needs of students and channels their minds and bodies into productive learning. This is a mission that will inspire educators and students, alike.

## Conclusion

Integrating 21<sup>st</sup> century skills deliberately and systematically into middle school education will empower educators to accomplish many of the elusive goals they have tried to reach for years. Twenty-first century skills include the intelligent reasoning, positive attitudes, and practical skills that enable students to learn and achieve in core subjects at higher levels. They provide a powerful organizing framework for leadership and professional development, and for teaching and learning that motivates and engages students and builds their confidence as learners. And, 21<sup>st</sup> century skills prepare middle school students to enter high school ready for a rigorous curriculum, rather than consigned to remedial coursework. Of course, students must continue to practice and build 21<sup>st</sup> century skills in high school. But, if they enter high school without them, they will be at a decided disadvantage.

The intentional goal of middle school should be deep content knowledge and proficiency in 21<sup>st</sup> century skills by the end of eighth grade. These skills will prepare students to innovate and lead 21<sup>st</sup> century enterprises and participate effectively in civic life. This outcome would contribute mightily to educating a talented pool of young Americans who are ready to shape the destiny of the nation.

## References

- Achieve, Inc. (2008, July). *Out of many, one: Toward rigorous common core standards from the ground up*. Washington, DC: Author. Retrieved January 12, 2009, from <http://www.achieve.org/files/CommonCore.pdf>
- ACT. (2005). *Crisis at the core: Preparing all students for college and work*. Iowa City, IA: Author. Retrieved January 12, 2009, from [http://www.act.org/research/policymakers/pdf/crisis\\_report.pdf](http://www.act.org/research/policymakers/pdf/crisis_report.pdf)
- Association of American Colleges and Universities. (2007). *College learning for the new global century*. Washington, DC: Author. Retrieved January 12, 2009, from [http://www.aacu.org/leap/documents/GlobalCentury\\_final.pdf](http://www.aacu.org/leap/documents/GlobalCentury_final.pdf)
- Casner-Lotto, J., & Barrington, L. (2006). *Are they really ready for work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21<sup>st</sup> century U.S. workforce*. The Conference Board, Partnership for 21<sup>st</sup> Century Skills, Corporate Voices for Working Families, and Society for Human Resource Management. Retrieved January 12, 2009, from [http://www.21stcenturyskills.org/documents/FINAL\\_REPORT\\_PDF09-29-06.pdf](http://www.21stcenturyskills.org/documents/FINAL_REPORT_PDF09-29-06.pdf)
- Conley, D. T. (2005). *College knowledge: What it really takes for students to succeed and what we can do to get them ready*. San Francisco: Wiley/Jossey-Bass.
- Conley, D. T. (March 2007). *Toward a more comprehensive conception of college readiness*. Eugene, OR: Educational Policy Improvement Center.
- Partnership for 21<sup>st</sup> Century Skills. (2006, April). *Results that matter: 21<sup>st</sup> century skills and high school reform*. Tucson, AZ: Author. Retrieved January 12, 2009, from <http://www.21stcenturyskills.org/documents/RTM2006.pdf>
- Partnership for 21<sup>st</sup> Century Skills. (2007). *Beyond the three Rs: voter attitudes toward 21<sup>st</sup> century skills*. Tucson, AZ: Author. January 12, 2009, from [http://www.21stcenturyskills.org/documents/P21\\_pollreport\\_singlepg.pdf](http://www.21stcenturyskills.org/documents/P21_pollreport_singlepg.pdf)
- Rubenstein, G. (2007, June). Fast forward: Redefining learning as a student-centered activity. *Edutopia*. Retrieved January 12, 2009, from <http://www.edutopia.org/fast-forward-school-district-redefines-learning>

**Ken Kay** is president of the Partnership for 21<sup>st</sup> Century Skills ([www.21stcenturyskills.org](http://www.21stcenturyskills.org)) in Tucson, Arizona. E-mail: [alang@eluminategroup.com](mailto:alang@eluminategroup.com)

## Reviewer Thank You

*Middle School Journal* wishes to thank the following professionals for their time, effort, and expertise in reviewing manuscripts in 2008–2009.

<b>Laura Allen</b> , San Antonio, TX	<b>Stacy Duffield</b> , Fargo, ND	<b>Jacqueline McDowell</b> , Mount Berry, GA	<b>Karl A. Smith</b> , East Bridgewater, MA
<b>William Bintz</b> , Kent, OH	<b>Timothy Eagen</b> , E. Northport, NY	<b>Howard Miller</b> , Long Island City, NY	<b>Delaine Stendahl</b> , Whitehall, WI
<b>Penny Bishop</b> , Burlington, VT	<b>James Etim</b> , Winston Salem, NC	<b>Jennifer Miller</b> , Garrettsville, OH	<b>Karen Stinson</b> , Keosauqua, IA
<b>Wayne Brinda</b> , Pittsburgh, PA	<b>Rose Fabiszak</b> , New York, NY	<b>Terry Miller</b> , Edna, MN	<b>Beckie Stobaugh</b> , Bowling Green, KY
<b>H. Jurgen Combs</b> , Winchester, VA	<b>Sonja Grove</b> , Portland, OR	<b>Nancy B. Mizelle</b> , Milledgeville, GA	<b>Cela Sullivan</b> , Kansas City, MO
<b>Lyn Countryman</b> , Cedar Falls, IA	<b>Cecelia Haas</b> , Kyle, SD	<b>John Myers</b> , Nashville, TN	<b>George Swain</b> , West Park, NY
<b>Elizabeth Dore</b> , Radford, VA	<b>Joan Knickerbocker</b> , Mansfield, OH	<b>Sharon Riley Ordu</b> , Lilburn, GA	<b>Carol Tomlinson</b> , Charlottesville, VA
<b>John Dougherty</b> ,* St. Charles, MO	<b>Sylvester Kohut, Jr.</b> , Philadelphia, PA	<b>Katherine Owens</b> , Akron, OH	<b>Michele Turner</b> , Roggen, CO
	<b>Gail Lockart</b> , Charleston, IL	<b>Robert Richardson</b> , La Crosse, WI	<b>Karen Weller Swanson</b> , Centerville, VA
	<b>Mark MacMillan</b> , Colorado Springs, CO	<b>Robert Ruder</b> , Lancaster, PA	<b>Steven White</b> , Lawrence, KS
	<b>Lee Manning</b> , Virginia Beach, VA	<b>Peter Scales</b> , Manchester, MO	<b>Mary Williams</b> , Brooklet, GA
	<b>Terry Martin</b> , Ellensburg, WA	<b>Rebecca Schumacher</b> , Portland, ME	
	<b>Gail Mayotte</b> , Newton, MA	<b>Allen Seed</b> , Collierville, TN	

\*We acknowledge the long service of John Dougherty, who passed away in January 2009.