To succeed in college, career and life in the 21st century, students must be supported in mastering both content and skills. This Implementation Guide presents state leaders, policymakers and/or district and school leaders with assessment tactics and examples to assist in statewide 21st century skills initiatives. The Partnership for 21st Century Skills has issued five brief, user-friendly guides, one for each of the P21 support systems:

1. Standards
2. Assessment
3. Professional Development
4. Curriculum & Instruction
5. Learning Environments

It is worth noting that these support systems are not merely ends, but means to a greater goal—to help children develop the cognitive, academic, emotional and physical competencies they need to succeed in 21st century life.

The Partnership recognizes that taking an aligned, comprehensive approach across all five support systems is a significant challenge for all educators. The Implementation Guides have been developed to help support this difficult work. While not every recommendation and example will apply to every state, we hope the resources will help jumpstart efforts to produce more capable, successful 21st century students and citizens.

All 21st century skills initiatives must focus on:

1: Core Academic Subject Mastery

It is important to note that no 21st century skills implementation can be successful without developing core academic subject knowledge and understanding among all students. Students who can think critically and communicate effectively must build on a base of core academic subject knowledge. For this reason, core academic subjects are a bedrock component of the P21 Framework for 21st Century Learning. All 21st century skills can and should be taught in the context of core academic subjects.

2: 21st Century Skills Outcomes

In addition to core subject mastery, the Partnership asks every state, district and school the following question: are schools helping students become...

- Critical thinkers?
- Problem solvers?
- Good communicators?
- Good collaborators?
- Information and technology literate?
- Flexible and adaptable?
- Innovative and creative?
- Globally competent?
- Financially literate?

To learn more about the Partnership’s state initiatives, the Framework or the Implementation Guides, please visit www.21stcenturyskills.org.
Rationale
Our nation faces serious questions in regards to our educational system. The purpose of this document is to provide you with perspective on the key issues to consider—as a policy maker, as state leader, as a district or school administrator—to ensure that you are planning for the future and building strategies that will solidify the success of our students, not only in school and work, but in life.

Vision
Twenty-first century skills professional development supports teachers and administrators as they incorporate 21st century skills into their schools and classrooms. All professional development efforts should exist as part of an aligned system of teaching and learning that includes 21st century skills standards, curriculum, instruction and assessments. Successful professional development initiatives around 21st century skills, like most effective PD efforts, include fundamental characteristics that are widely accepted, such as:

- Ensuring educators understand the importance of 21st century skills and how to best integrate them into daily instruction.
- Enabling collaboration among all participants.
- Allowing teachers and principals to construct their own learning communities.
- Tapping the expertise within a school or school district through coaching, mentoring, and team teaching.
- Supporting educators in their role of facilitators of learning.
- Using 21st century technology tools.

Precise implementation recommendations follow.
Guiding Recommendations, Promising Directions
The following action steps can be taken to move states, districts and schools towards ensuring that our nation’s students will be prepared for success in the 21st century.

<table>
<thead>
<tr>
<th>Guiding Recommendations</th>
<th>Promising Directions</th>
</tr>
</thead>
</table>
| #1: Develop intensive teacher professional development programs that focus intentionally on 21st century skills instruction. Consider developing PD sessions that focus on enhancing authentic 21st century skills outcomes in the teaching of core subjects and interdisciplinary themes; for example, training that helps educators integrate critical thinking and communication in the context of mathematics lessons and instruction, or creativity and ICT literacy in the context of language arts lessons and instruction. | • **North Carolina**, New Literacies Collaborative at the Friday Institute is a multidisciplinary group of researchers and practitioners who promote research and online professional development for educators in new literacies. [http://www.fi.ncsu.edu/project/new-literacies-collaborative/](http://www.fi.ncsu.edu/project/new-literacies-collaborative/)
• **Iowa's Authentic Intellectual Work (AIW)** is a statewide initiative to improve teaching and learning through ongoing professional development. It highlights ways teachers can teach for deep understanding of subject matter in ways that enhance problem-solving, critical thinking and other 21st century skills, through a balance of direct instruction and project-oriented teaching methods.

| #2: Integrate 21st century skills into teacher preparation and certification. Revise graduation requirements for colleges of education to ensure that prospective teachers are learning to model, teach and assess 21st century skills. | • The American Association of Colleges for Teacher Education (AACTE) is partnering with P21 to generate a vision paper that will include 1) a consensus definition of “21C-SOE: 21st Century Schools of Education”, and 2) specific steps and recommendations on the federal, state and local levels that will help guide the creation of 21st century schools of education. [http://www.aacte.org/](http://www.aacte.org/)
• The National Council for Accreditation of Teacher Education (NCATE) is encouraging institutions to focus on initiatives related to key national, state and district needs through a continuous self-improvement process. [http://www.ncate.org/](http://www.ncate.org/)

| #3: Build capacity. Work with administrators and teacher leaders to create an environment of differentiated professional learning, risk taking, and collaborative relationships. | Teacher Leader Capacity Building Model: Southfield Public Schools, MI and Cypress Fairbanks ISD in Houston, TX are implementing capacity building professional development using the teacher leader model at selected schools in their districts. Teacher leaders and school-based coaches are working with ASCD Faculty members to develop expertise in specific instructional practices by participating in job-embedded professional development experiences. Teacher leaders are leading the professional learning of their colleagues and have their classrooms serve as demonstration classrooms. District leaders have played an integral role in assuring that there is effective professional development planning in place before and during the implementation, including gathering evidence of changes in teacher practice. [http://www.ascd.org](http://www.ascd.org)

| #4: Develop district leadership teams to infuse 21st century skills throughout the school district. Work with district superintendent to develop district-level institutes for school leadership teams around 21st century skills. Teams should be trained and empowered to develop district-level 21st century skills strategies. Such institutes should also be places where teachers can be trained as leaders able to pass on their expertise to other teachers within their district. | **Catalina Foothills School District** in Tucson, Arizona has an Assistant Superintendent for 21st Century Learning who works with a leadership team to implement their program across the district. [http://www.cfsd16.org/public/_century/centMain.aspx](http://www.cfsd16.org/public/_century/centMain.aspx)
<table>
<thead>
<tr>
<th>Guiding Recommendations</th>
<th>Promising Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>#5: Invest in ICT (information communications technologies) excellence.</strong> Develop a PD program focused on ensuring school and district technology directors are fully trained in the area of ICT literacy.</td>
<td><strong>The Friday Institute of North Carolina State University</strong> is made up of close to 60 corporate and government organizations and business incubators working in partnership with faculty and students in a highly innovative environment to “to advance education through innovation in teaching, learning, and leadership.” <a href="http://www.fi.ncsu.edu/">http://www.fi.ncsu.edu/</a></td>
</tr>
</tbody>
</table>
| **#6: Develop professional learning communities around specific 21st century skills.** Invest in creating professional online learning communities to support teachers, administrators and state department of education employees in the creation of online support groups for 21st century skills. | **Iowa’s Authentic Intellectual Work Teacher Development Academy** is a statewide initiative to improve teaching and learning through ongoing professional development. It highlights ways teachers can teach for deep understanding of subject matter in ways that enhance problem-solving, critical thinking and other 21st century skills, through a balance of direct instruction and project-oriented teaching methods.  
- **Intel Teach** uses a “Train the trainer” model to provide both face-to-face and online instruction to help teachers around the world integrate technology into their classrooms. Teachers create lesson plans that can be immediately implemented and that meet local and national education goals and standards. The program also offers an interactive forum focused on leadership in promoting, supporting, and implementing effective technology integration in schools. [http://www.intel.com/education/teach/index.htm](http://www.intel.com/education/teach/index.htm)  
- In **JeffCo Public Schools in Colorado**, community engagement technology is being used to bridge both the time and space gap for district-wide professional learning communities. Using Blackboard Learn™, teachers have fast access to content and peer groups most relevant to their role. [http://www.blackboard.com/k12](http://www.blackboard.com/k12) |
| **#7: Train administrators around how to lead 21st century skills initiatives.** | **North Carolina’s Middle School Literacy Coaches** are specially selected teachers charged with coaching other teachers in the delivery of 21st century instruction and embedding best practices into the school culture.  
- **The West Virginia Institute for 21st Century Leadership** prepares West Virginia’s principals to develop and lead 21st century schools by providing in-depth professional development and support for school leaders, and expands the leadership knowledge/skills of West Virginia principals to the application level of 21st century leadership. |
<p>| <strong>#8: Offer professional development to state departments of education staff.</strong> | <strong>West Virginia</strong> held a nine-day Professional Development Series whereby each office at the Department of Education explored the applicability of 21st century skills to their own work. |
| <strong>#9: Engage colleges of education for 21st century skills leadership.</strong> Develop PD for the leadership of state colleges of education that addresses 21st century skills. Involve deans and faculty from colleges of education in district- and state-level teacher professional development. | <strong>The American Association of Colleges for Teacher Education (AACTE)</strong> is partnering with P21 to generate a vision paper that will include 1) a consensus definition of “21C-SOE: 21st Century Schools of Education”, and 2) specific steps and recommendations on the federal, state and local levels that will help guide the creation of 21st century schools of education. <a href="http://www.aacte.org/">http://www.aacte.org/</a> |</p>
<table>
<thead>
<tr>
<th>Guiding Recommendations</th>
<th>Promising Directions</th>
</tr>
</thead>
</table>
| **#10: Integrate 21st century skills into teaching standards.** Advocate for the integration of 21st century skills into teaching standards to ensure that teachers are able to teach and assess critical thinking and problem solving skills. | • **North Carolina and West Virginia State Boards of Education** have adopted revised professional teaching standards that are aligned to 21st century teaching and learning. Teacher evaluation tools and teacher professional development programs focusing on 21st century skills are based on these teacher standards.  
• **National Board for Professional Teaching Standards (NBPTS)** is an independent, nonprofit, nonpartisan and nongovernmental organization formed in 1987 to advance the quality of teaching and learning by developing professional standards for accomplished teaching, creating a voluntary system to certify teachers who meet those standards and integrating certified teachers into educational reform efforts. [http://www.nbpts.org/](http://www.nbpts.org/) |
| **#11: Leverage the reach of the Web to distribute resources.** Build a resource-rich PD website for teachers across each state. These sites should assist colleagues in planning and delivering effective 21st century instruction in the classroom. | • **Teach 21** is a comprehensive Web resource designed by teachers working collaboratively with the West Virginia Department of Education. [http://wvde.state.wv.us/teach21](http://wvde.state.wv.us/teach21)  
• **Thinkfinity** is the cornerstone of Verizon Foundation’s literacy, education and technology initiatives. The resources available through Thinkfinity’s content partners reflect 21st century teaching and skills and make use of digital sources. [http://www.thinkfinity.org/](http://www.thinkfinity.org/) |
Resources
In addition to the references above, the Partnership for 21st Century Skills has compiled the following list of resources to provide you with background knowledge, models and best practices in the various areas of professional development.

Institutions and Thought Leaders

AACTE, http://www.aacte.org

ASCD, http://www.ascd.org

The Friday Institute, North Carolina State University, http://www.fi.ncsu.edu/


A complete updated list of available references, including reports, state initiatives, white papers and more are available at www.21stcenturyskills.org.

Free White Paper on 21st Century Professional Development

About the Partnership for 21st Century Skills
The Partnership for 21st Century Skills has emerged as the leading advocacy organization focused on infusing 21st century skills into education. The organization brings together the business community, education leaders and policymakers to define a powerful vision for 21st century education to ensure every child’s success as citizens and workers in the 21st century. The Partnership encourages schools, districts and states to advocate for the infusion of 21st century skills into education and provides tools and resources to help facilitate and drive change.

To learn more about 21st century learning and state actions to date, visit www.21stcenturyskills.org.

Copyright © 2009. The Partnership for 21st Century Skills. All rights reserved.