



# A State Leaders Action Guide to 21st Century Skills

A NEW VISION FOR EDUCATION



PARTNERSHIP FOR  
21ST CENTURY SKILLS



## PARTNERSHIP FOR 21ST CENTURY SKILLS

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# Preparing Students to Compete in the 21st Century

**For well over a decade, virtually every state in the nation has focused on implementing standards, assessments and accountability measures for K–12 schools.**

Why, then, is America rapidly losing ground on measures of educational excellence, workforce competitiveness and economic innovation?

Here's why: Despite the considerable progress that states have made in raising academic expectations, **education is still, for the most part, stuck in the 20th century.** By traditional metrics, American students *are* doing better in school. But these metrics aren't sufficiently challenging students to meet the demands of the 21st century — especially in a world where international competitors are threatening U.S. preeminence on multiple fronts.

Clearly, states' investment in education needs to go beyond the basics. Standards, assessments and accountability measures don't yet reflect *all* the results that matter for students. Mastering core content — the focus of most school improvement efforts to date — is just the start.

**The urgent challenge for state leaders today is to move education into the 21st century.** Students must become proficient in new, 21st century skills that are in demand in postsecondary learning, on the job and in modern society. And students must learn critical 21st century content that is not reflected in the core curriculum today.

States can provide students with a truly relevant education *only* if they incorporate 21st century skills into core subjects. In fact, 21st century skills *enable* students to master core subjects. Further, 21st century skills define the outcomes that states should expect from students. And they make teaching and learning engaging, relevant and meaningful to students' lives.

With a 21st Century Skills Initiative, innovative state leaders will give young people the edge they need to compete successfully in an international economy.







## A Call to Action for State Leaders

- **Recognize that there are results that matter for students in the 21st century — and these results are different from and go beyond traditional metrics.**

Even if every student in the country satisfied traditional metrics, such as staying in school, taking harder classes and mastering core subjects, they still would remain woefully under-prepared for success beyond high school.

- **Redefine “rigor” to encompass not just mastery of core subjects, but also mastery of 21st century skills and content.**

Rigor must reflect *all* the results that matter. Today's students need to be critical thinkers, problem solvers and effective communicators who are proficient in both core subjects and new, 21st century content and skills. These 21st century skills, which are detailed on the next page, include learning and thinking skills, information and communications technology (ICT) literacy skills, and life skills.

- **Plan and implement a 21st Century Skills Initiative that reflects a vision for learning that will prepare every student for success in the 21st century.**

This publication highlights strategies for a successful 21st Century Skills Initiative, partnership opportunities and promising practices in leadership states.

# A Vision for 21st Century Learning

**The Partnership for 21st Century Skills has developed a unified, collective vision for 21st century learning that can be used to strengthen American public schools.**

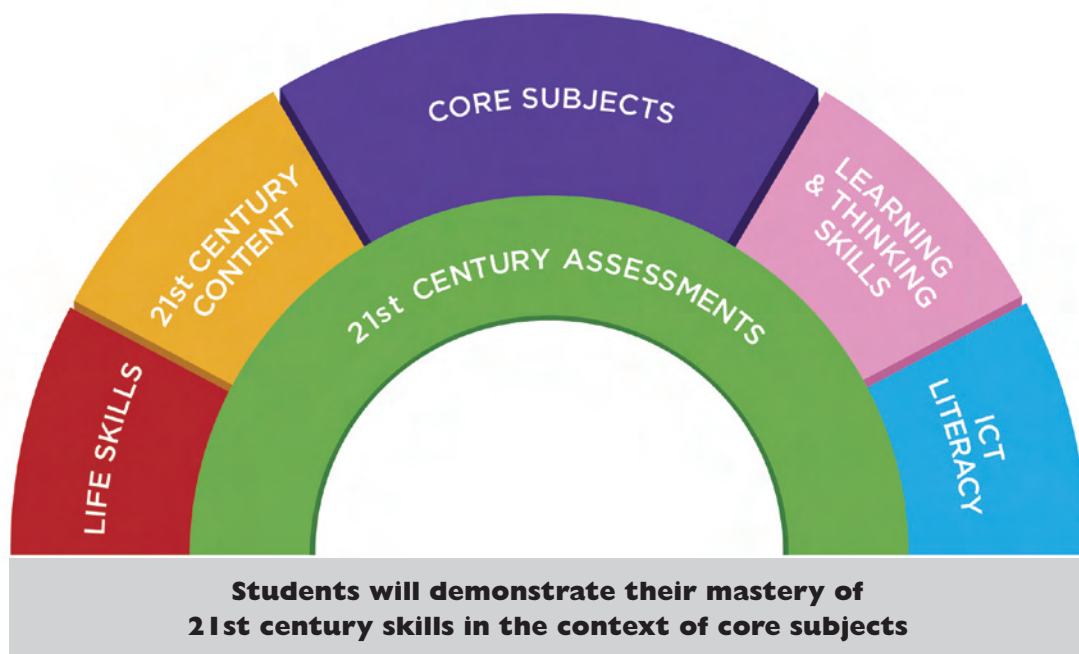
This vision is the result of a sustained, comprehensive effort to create a shared understanding and common language for education. To develop this vision, the Partnership conducted extensive research on 21st century skills, sponsored a National Forum on 21st Century Skills and held outreach sessions with educators, employers, parents, community members and students. The Partnership has refined this vision at annual summits.

In the course of this multiyear process, thousands of key stakeholders and citizens across the country have contributed their insights about the results that matter. There is strong support for infusing 21st century skills into education. This is the kind of dynamic instruction that initially attracted most educators to the field. The Partnership has identified six key elements of 21st century learning:


**Core subjects.** The No Child Left Behind Act of 2001, which reauthorizes the Elementary and Secondary Education Act of 1965, identifies the core subjects as English, reading or language arts; mathematics; science; foreign languages; civics; government; economics; arts; history; and geography.

**21st century content.** Several significant, emerging content areas are critical to success in communities and workplaces. These content areas typically are not emphasized in schools today:

- Global awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health and wellness awareness







**Learning and thinking skills.** As much as students need to learn academic content, they also need to know how to keep learning — and make effective and innovative use of what they know — throughout their lives. Learning and thinking skills are comprised of:

- Critical-thinking and problem-solving skills
- Communication skills
- Creativity and innovation skills
- Collaboration skills
- Contextual learning skills
- Information and media literacy skills

**ICT literacy.** Information and communications technology (ICT) literacy is the ability to use technology to develop 21st century content knowledge and skills, in the context of learning core subjects. Students must be able to use technology to learn content and skills — so that they know *how* to learn, think critically, solve problems, use information, communicate, innovate and collaborate.

**Life skills.** Good teachers have always incorporated life skills into their pedagogy. The challenge today is to incorporate these essential skills into schools deliberately, strategically and broadly. Life skills include:

- Leadership
- Ethics
- Accountability
- Adaptability
- Personal productivity
- Personal responsibility
- People skills
- Self-direction
- Social responsibility

**21st century assessments.** Authentic 21st century assessments are the essential foundation of a 21st century education. Assessments must measure all five results that matter — core subjects; 21st century content; learning and thinking skills; ICT literacy; and life skills.

Assessment of 21st century skills should be integrated with assessments of core subjects. Separate assessments would defeat the purpose of infusing 21st century skills into core subjects.

To be effective, sustainable and affordable, assessments must use modern technologies to increase efficiency and timeliness. Standardized tests alone can measure only a few of the important skills and knowledge students should learn. A balance of assessments, including high-quality standardized testing along with effective classroom assessments, offers students and teachers a powerful tool to master the content and skills central to success.

## Redefining Rigor for the 21st Century

Many school improvement advocates call for students to learn a rigorous core curriculum, especially advanced courses in English, mathematics and science. The Partnership supports this stance. Students who enroll in more challenging classes are better prepared for postsecondary education and careers.

At the same time, the Partnership believes that “rigor” must be redefined to encompass 21st century skills and content as well, which should be infused throughout the curriculum. Integrating 21st century skills into teaching and learning will make core subjects more rigorous, as the highly regarded Programme for International Student Assessment (PISA) makes clear. PISA results are available at [www.pisa.oecd.org](http://www.pisa.oecd.org).

At a time when technology, information and knowledge are constantly changing, learning and thinking skills, ICT literacy and life skills are the best legacy that a K–12 education can impart to this generation of young people. These skills empower students to find, manipulate and use content to learn, solve problems, create and think for a lifetime. In fact, 21st century skills are the powerful means by which students make effective use of their content knowledge. However, 21st century skills do not develop automatically in the course of mastering core academic content. Rather, these skills need to be explicitly integrated into core subjects.

**If schools incorporate all six elements of a 21st century education, students will indeed have a rigorous, meaningful and relevant education.**

Employers, educators and policymakers agree that the skills necessary for entering postsecondary education today are virtually the same skills necessary for success in the modern workplace. The results that matter apply to all students.

# Seven Strategies for a Successful 21st Century Skills Initiative

Every state can and must do a better job at preparing young people to succeed in the 21st century. With the vision of 21st learning that is gaining traction around the country, every state has the opportunity to make progress — starting now.

**Promoting a statewide 21st Century Skills Initiative can put state leaders out in front on other pressing state and local issues as well, including workforce preparation, community development and economic competitiveness.**

**A 21st century skills initiative is not simply an “education” agenda, but a blueprint for economic, civic and cultural vitality in the coming years. Through public education, we must plant the seeds for thriving, vibrant communities.**

State leaders are in the best position to turn the vision of 21st century learning into a reality. Education is largely a state issue — and one that the public continues to make a top priority. Parents, educators, community and business leaders all understand that the world is not standing still. In their everyday lives, these constituents see how important it is for young people to acquire both knowledge and skills that will enable them to thrive in ever-changing environments.


Almost half (45 percent) of nearly 400 company executives rate recently hired high school graduates as “deficient” in applied skills, according to a national survey conducted in the spring of 2006 by The Conference Board, Corporate Voices for Working Families, the Partnership for 21st Century Skills and the Society for Human Resource Management. Applied skills, or the ability to use knowledge to perform workplace tasks, are particularly lacking in written communications: writing memos, letters and complex technical reports clearly and effectively.

With a statewide 21st Century Skills Initiative, state leaders can focus attention on 21st century skills that matter to communities, educators and employers. Further, infusing 21st century skills into K–12 teaching and learning is a smart strategy for addressing many critical education issues, such as:

- Improving student performance, closing achievement gaps and raising test scores to meet No Child Left Behind requirements — and more challenging national and international benchmarks
- Engaging students in learning
- Improving high schools
- Reducing dropout rates
- Preparing students for college
- Improving technology access, use and competencies
- Revitalizing school library media programs and resources
- Strengthening after-school programs
- Improving the quality of out-of-school learning opportunities

A 21st Century Skills Initiative can help states connect and align every education program with results that matter — proficiency in 21st century skills.





**Since 2002, the Partnership for 21st Century Skills has been working with states and communities to reinvigorate learning to meet the demands of the 21st century. Based on this work, the Partnership believes there are seven strategies for a successful statewide 21st Century Skills Initiative:**

**1 High-profile leadership.**

State leaders at the highest level, including the governor, chief state school officer, legislators, educators, business leaders and influential citizens, must make the case for 21st century learning. State leaders should:

- Educate leaders at all levels to promote the importance of 21st skills for the future well-being of the state.
- Support state and local policies and funding that will lead to the integration of 21st century skills and core subjects.
- Review existing technological infrastructures and determine needed investments to support 21st century learning.

**2 Broad consensus and a shared vision.**

States should create an active coalition of business, education, non-profit and community organizations and parents to develop broad consensus and a shared vision on the 21st century skills they value. Working together, this coalition should:

- Collaborate with educators to garner their support. No plan to improve educational outcomes will get very far without educator buy-in. Educators welcome the focus on all the results that matter. The National Education Association, the American Federation of Teachers and the American Association of School Librarians, in fact, are strong supporters of 21st century learning and active members of the Partnership for 21st Century Skills.
- Spearhead statewide outreach and provide ongoing advice during the planning and implementation of a 21st Century Skills Initiative. Stakeholders should enlist the support of employers, educators and community groups who can convey the urgency for 21st century learning in their communities.

**3 Ongoing professional development in 21st century skills.**

States should support administrators and teachers with ongoing professional development in 21st century skills. States should:

- Train administrators in 21st century skills, including data analysis, collective inquiry and collaboration, student-focused continuous improvement processes, and effective use of technology, so that they can be effective role models and decision makers for integrating 21st century skills into every aspect of teaching, learning and administration.
- Develop or enhance professional development programs to ensure that teachers receive ongoing training to provide high-quality instruction in 21st century content and skills. Teachers need to learn how to weave 21st century skills and content into the core subjects they teach. They need ongoing support to incorporate new teaching strategies, classroom management practices and tools into their pedagogy. For example, in addition to traditional whole-class instruction, teachers need to vary their teaching with differentiated instruction; flexible grouping; collaborative, inquiry- and project-based learning; and online resources to meet the needs of individual students and prepare them for today's

expectations. Teachers also need to be proficient in ICT literacy, so they can help students develop this proficiency. And they should be able to access professional development with 21st century tools as much as possible.

- Consider providing educators with 21st century coaches who can assist them as they change practice to integrate 21st century skills
- Work with teacher education institutions to promote the inclusion of 21st century skills in future educators' training.
- Add competency in 21st century skills to accreditation criteria for teacher education programs.
- Connect teacher licensure to proficiency in both core subjects and 21st century skills.
- Consider creating 21st Century Teaching Academies, where teachers can develop and renew 21st century skills and pedagogy in structured programs.

#### **4 Standards and curriculum aligned with 21st century skills.**

Given the results that matter for students today, most academic standards are too low and do not reflect 21st century skills or content.

Many states allow students to earn a high school diploma with eighth- or tenth-grade knowledge and skills — or less — in core subjects. Higher standards are essential. States should:

- Review their standards, and rewrite them if necessary, to incorporate 21st century skills.
- Require students to master 12th-grade knowledge and skills before they leave high school. State standards should reflect 21st century content, learning and thinking skills, ICT literacy and life skills.
- Create strong eighth-grade technology proficiency requirements that incorporate learning and thinking skills.
- Fully integrate 21st century skills into the teaching and learning of the entire curriculum — updating how core subjects are taught, not as an add-on subject area.

#### **5 21st century assessments.**

There is growing, worldwide interest in creating modern assessments that measure 21st century skills, such as critical thinking, problem solving, communication skills and ICT literacy.

In 2005, the Partnership for 21st Century Skills released a thorough survey of international efforts to modernize assessments, along with a set of recommendations related to the assessment of 21st century skills. *Assessment of 21st Century Skills: The Current Landscape*, along with Assess 21, an online database of 21st century skills assessments, are available on our Web site at [www.21stcenturyskills.org](http://www.21stcenturyskills.org). Using these resources as starting points, states should:

- Create or adopt modern assessments that measure students' full range of knowledge, skills and abilities.
- Explore multiple approaches to accountability, so a once-a-year exam is not the only determinant of student achievement or student needs.
- Consider pilot projects that highlight new assessments focused on critical thinking, problem solving, communication skills and ICT literacy.
- Keep track of learning outcomes on results that matter.
- Develop a 21st century learning certification that identifies and acknowledges schools that have made significant progress in providing a 21st century education.



## 6 An effective communications strategy.

Clearly, planning and implementing a successful statewide 21st Century Skills Initiative requires a multi-faceted effort and collaboration among many constituencies.

An effective communications strategy is critical for building support, conveying accurate and timely information, soliciting insights from stakeholders, and keeping everyone focused on the goal of making 21st century learning a reality. States should:

- Engage everyone, from state-level officials to front-line educators, parents and students, in the vision of 21st century learning. A statewide 21st Century Skills Campaign that spells out the importance of 21st century skills to the economy, family prosperity and individual success is a good way to start.

## 7 An aggressive implementation strategy.

In every state, some schools and educators already are teaching and assessing 21st century skills. States should:

- Showcase existing models of success for others to learn from and build on.
- Reach out to potential partners. After-school, summer, volunteer and work experiences beyond the school day are excellent opportunities for acquiring valuable skills. Businesses, community organizations, non-profits, colleges and universities can be tremendous resources for career awareness, expertise, site visits, volunteer opportunities, internships and jobs.

## IN NORTH CAROLINA

### The Nation's First Center for 21st Century Skills

North Carolina in 2005 created the nation's first Center for 21st Century Skills, becoming the first Leadership State in the Partnership for 21st Century Skills State Leadership Project.

The center, a public-private collaborative supported by the North Carolina Business Committee for Education (NCBCE), focuses on the vision that all students will graduate from high school with the knowledge and skills needed for success in a 21st century global society. The state views its 21st century skills initiative as the linchpin that ties together all its education programs, including high school reform.

In May 2006, the state's board of education unanimously endorsed a framework for education based on 21st century skills, which will be the foundation for evaluating and realigning the state's K–12 standards and curriculum. The state also is planning to update training and professional development for educators and design tests that will better gauge student proficiency in 21st century skills.

NCBCE and the center have built a network of support with partner organizations, including corporate funding from Cisco, Duke Energy, Glaxo Smith Klein, Dell and Microelectronic Corporation, to promote 21st century skills.

<http://www.ncbce.org>

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**"I think we can — and must — provide North Carolina's students with a cutting-edge, real-world educational experience that will prepare them to compete in today's global marketplace."**  
.....

— N.C. Gov. Mike Easley

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**"If we want our children to become successful citizens and workers in our global economy, we must ensure that they master 21st century skills."**  
.....

— Howard Lee, chair, N.C. State Board of Education

# Partnerships to Leverage Momentum

**There is no single strategy for creating a successful 21st Century Skills Initiative. The key for state leaders is to recognize the importance of 21st century learning — and then consider the best options for making it happen in their states.**

States differ in their readiness and capacity to move forward and make progress with 21st century learning. Some states will want to develop a 21st Century Skills Initiative entirely on their own. At the national level, alliances of policymakers, the business community and educators have been very effective at shaping the agenda for education. Statewide partnerships for 21st century skills should mirror this kind of collaborative effort.

Some states will want to leverage momentum for 21st century learning by taking advantage of two unique opportunities for multi-state partnerships. Both of these partnerships can dovetail with states' existing work to improve education through other multi-state collaborations:

## **Partnership for 21st Century Skills State Leadership Project**

The Partnership's State Leadership Project is designed to foster and promote educational practices in states that have aligned their educational vision, focus and resources around 21st century learning.

Leadership States are committed to implementing 21st century skills on a broad scale and equipping their citizens, communities and businesses to meet the challenges of the 21st century.

The Partnership works with state policy leaders, advisory committees and coalitions to build a statewide agenda and implementation plan. While implementation strategies vary from state to state, a common goal — ensuring that every student has 21st century skills — is shared by every state.

### **Joining the Partnership as a Leadership State offers these benefits:**

- Expertise, technical assistance, training and resources for raising standards and aligning curriculum, assessments, professional development, funding and public outreach to results that matter
- Opportunities to share experiences and best practices through networking forums and online collaboration with other Leadership States, which can smooth implementation and reduce costs
- Opportunities to network and collaborate with Partnership member organizations on projects that support 21st century learning
- Materials and messaging that support education funding
- National visibility

*To learn more about becoming a Leadership State, visit the Partnership's Web site at [www.21stcenturyskills.org](http://www.21stcenturyskills.org).*





## Council of Chief State School Officers SCASS.21

Since 1991, the State Collaborative on Assessment and Student Standards (SCASS) projects of the Council of Chief State School Officers (CCSSO) have encouraged and assisted states in working collaboratively on assessment design and development for a variety of topics and subject areas.

In 2006, CCSSO launched a new offering, SCASS.21, which springs out of the organization's continuing exploration of the skills students need to meet the demands of the 21st century. The Partnership is assisting with this offering.

This new collaborative will establish a community of practice to assist states as they define new standards of learning for the 21st century, develop assessments for 21st century skills and provide professional development for teachers. In addition, this initiative has and will continue to attract the interest, both professional and financial, of businesses and other partners that will be the beneficiary of better-prepared graduates.

SCASS.21 aims to provide leading states with an opportunity and a forum to develop the tools, techniques and programs required for success in this century.

To learn more about SCASS.21, visit the CCSSO Web site at [www.ccsso.org](http://www.ccsso.org).

## IN WEST VIRGINIA Planning for Student Success

West Virginia in 2005 became the second state in the nation to embrace the Partnership's framework for 21st century learning. The state is promoting 21st century skills in its schools by:

- Revising content standards, curriculum and assessments to align with 21st century skills
- Developing a 21st century "credential" for high school graduates
- Training administrators to understand 21st century learning and implement a 21st century skills initiative
- Offering online professional development courses and self-assessments in 21st century skills for teachers

Early in 2006, the state department of education held eight Voices from the Field forums to give teachers the opportunity to shape the vision for 21st century learning and professional development.

<http://wvde.state.wv.us>

.....  
**"We're responsible for producing students who can read and write, but can they analyze data? Can they solve challenging problems with a first-rate skill set? Can they communicate effectively? These central skills are what will make the difference as our global marketplace grows more and more competitive each day."**

— Steven L. Paine, W.Va. State Superintendent of Schools  
.....

# Conclusion

This is a pivotal moment in the national education debate. In an era of intense global competition, there is mounting evidence and widespread public recognition that our education system is inadequately preparing students with the edge they need to compete.

**For state leaders, this is an opportunity to articulate a new vision of learning that will focus school improvement on the results that matter: proficiency in 21st century skills.**

This vision is within reach. The Partnership for 21st Century Skills has developed a framework for 21st century learning that infuses core subjects with 21st century skills. There is growing national momentum and broad consensus behind this vision. The Partnership's State Leadership Project offers specific action steps, partnership opportunities and practical resources to make it a reality.

It's incumbent on state leaders to take up the challenge and move their own schools forward. A 21st Century Skills Initiative can align school improvement, economic development and workforce preparation priorities with student outcomes that define success.

There is no better legacy — or future — that state leaders can create for students today.





## Resources

The Partnership for 21st Century Skills has taken real action — issuing three reports, an interactive guide, online tools and ICT literacy maps — in an effort to promote a powerful vision for 21st century education:



- **Learning for the 21st Century** articulates a collective vision for learning in the 21st century.
- **Milestones for Improving Learning and Education (MILE) Guide for 21st Century Skills** is a self-assessment tool that assists schools, districts and states in determining their school or district's progress in defining, teaching and assessing 21st century skills.
- **Route 21: An Interactive Guide to 21st Century Learning** is a Web-based tool that assists education stakeholders in supporting and promoting achievement of ICT literacy and 21st century skills. As a result, users can develop and implement a plan to support a successful 21st century learning environment.
- **The Road to 21st Century Learning: A Policymakers' Guide to 21st Century Skills** assists state education leaders in crafting visionary education policies. The report offers specific guidance to help create a 21st century learning environment, as well as policy recommendations.
- **ICT Literacy Maps** are a series of matrices that illustrate the intersection between ICT literacy and core academic subjects including geography, math, English and science. The maps enable all education stakeholders to gain concrete examples of how ICT literacy can be integrated into core subjects.
- **The Assessment of 21st Century Skills: The Current Landscape** highlights emerging progress in the United States and abroad to develop means to measure complex, higher-order thinking skills. The report also defines key terms and concepts in the field of measurement and outlines key principles and strategic recommendations for making these assessments a more prominent component of U.S. education.
- **Assess 21** is a Web-based repository for information on assessments of 21st century skills. The tool highlights assessments currently available, while emphasizing where particular gaps in the assessment of 21st century content and skill domains exist.
- **Results that Matter** engages in the current conversation about high school reform by outlining a compelling framework for 21st century learning that focuses on the results that matter for today's high school graduates.

These resources are available on the Partnership's Web site at [www.21stcenturyskills.org](http://www.21stcenturyskills.org).

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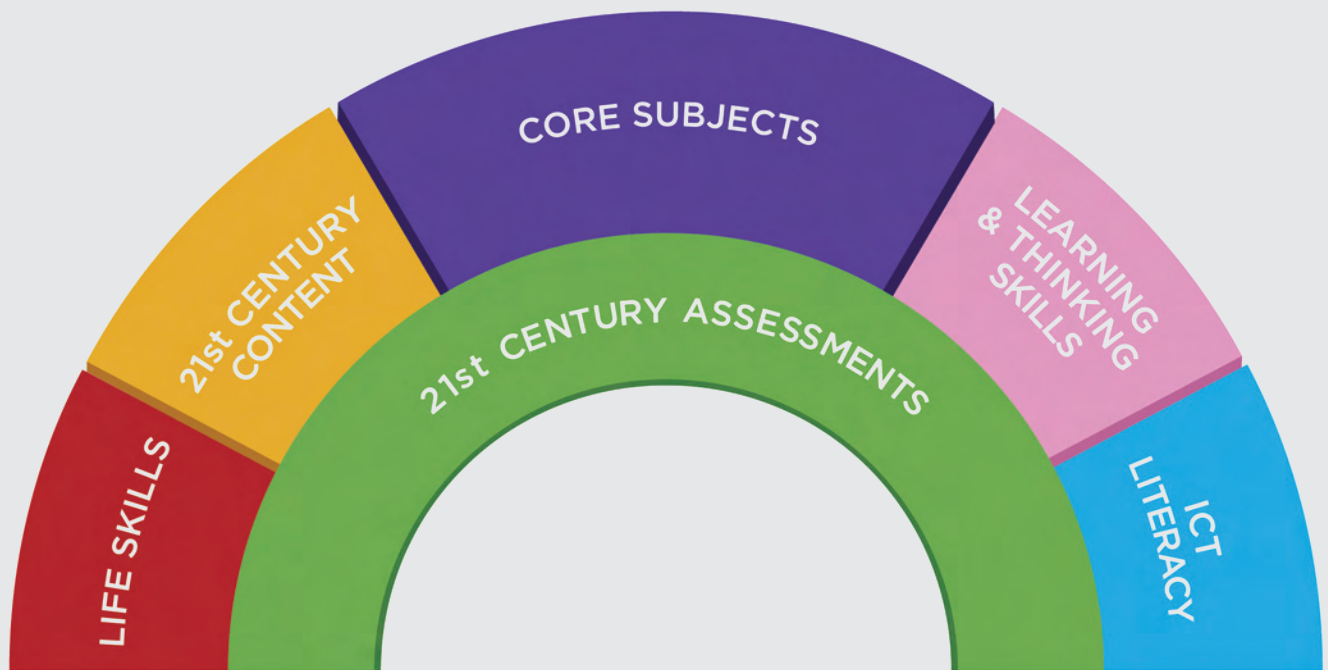
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