



**FRAMEWORK FOR
21st CENTURY LEARNING
DEFINITIONS**



P21 FRAMEWORK DEFINITIONS

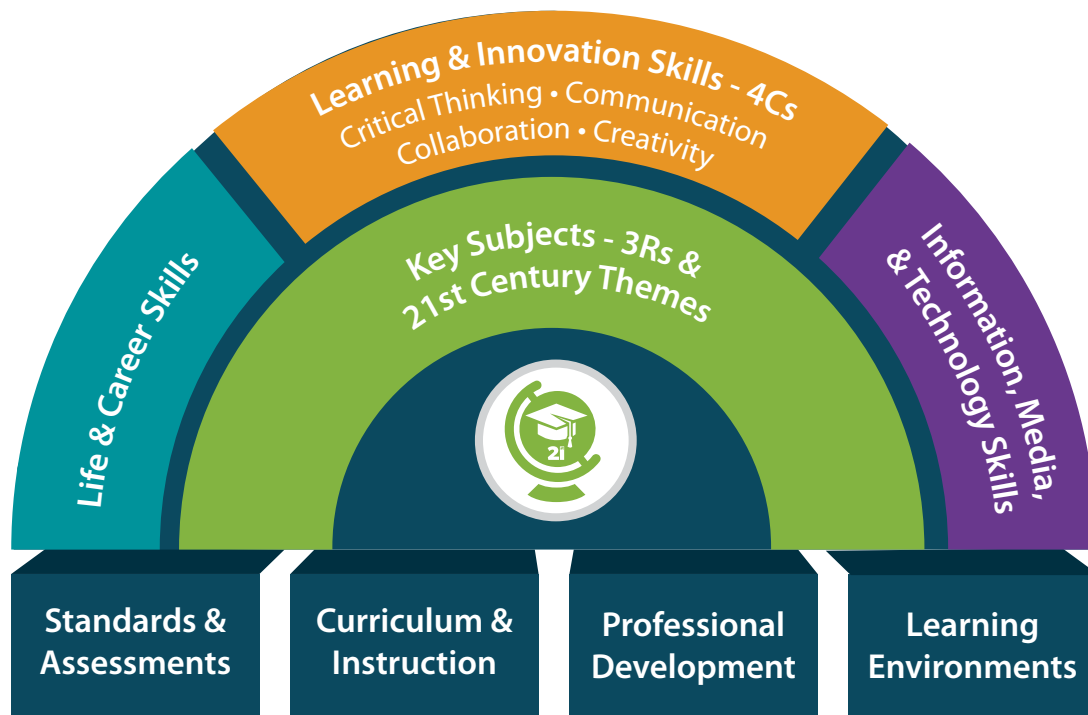
To help practitioners integrate skills into the teaching of key academic subjects, the Partnership for 21st Century Learning (P21) has developed a unified, collective vision for learning known as the Framework for 21st Century Learning. This Framework describes the skills, knowledge, and expertise students must master to succeed in work and life; it is a blend of content knowledge, specific skills, expertise, and literacies.

Every 21st century skills implementation requires the development of key academic subject knowledge and understanding among all students. Those who can think critically and communicate effectively must build on a base of key academic subject knowledge.

Within the context of key knowledge instruction, **students must also learn the essential skills for success in today's world, such as critical thinking, problem solving, communication, and collaboration.**

When a school or district builds on this foundation, combining the entire Framework with the necessary support systems—standards, assessments, curriculum and instruction, professional development, and learning environments—students are more engaged in the learning process and graduate better prepared to thrive in today's global economy.

While the graphic represents each element distinctly for descriptive purposes, P21 views all the components as fully interconnected in the process of 21st century teaching and learning.



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21st Century Student Outcomes

The elements described in this section as “21st century student outcomes” (represented by the rainbow) are the knowledge, skills, and expertise students should master to succeed in work and life in the 21st century.

Key subjects and 21st century themes

Mastery of key subjects and 21st century themes is essential for all students in the 21st century. Key subjects include:

- English, reading, or language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and Civics

In addition to these subjects, we believe schools must move to include not only a focus on mastery of key subjects, but also promote understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into key subjects:

GLOBAL AWARENESS

- Use 21st century skills to understand and address global issues
- Learn from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
- Understand other nations and cultures, including the use of non-English languages

FINANCIAL, ECONOMIC, BUSINESS, AND ENTREPRENEURIAL LITERACY

- Know how to make appropriate personal economic choices
- Understand the role of the economy in society
- Use entrepreneurial skills to enhance workplace productivity and career options

CIVIC LITERACY

- Participate effectively in civic life through knowing how to stay informed and understanding governmental processes
- Exercise the rights and obligations of citizenship at local, state, national, and global levels
- Understand the local and global implications of civic decisions

HEALTH LITERACY

- Obtain, interpret, and understand basic health information and services and using such information and services in ways that enhance health
- Understand preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance, and stress reduction
- Use available information to make appropriate health-related decisions
- Establish and monitor personal and family health goals
- Understand national and international public health and safety issues

ENVIRONMENTAL LITERACY

- Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water, and ecosystems
- Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.)
- Investigate and analyze environmental issues, and make accurate conclusions about effective solutions
- Take individual and collective action towards addressing environmental challenges (e.g., participating in global actions, designing solutions that inspire action on environmental issues)

LEARNING AND INNOVATION SKILLS

Learning and innovation skills increasingly are being recognized as those that separate students who are prepared for a more and more complex life and work environments in the 21st century, and those who are not. A focus on creativity, critical thinking, communication, and collaboration is essential to prepare students for the future.

Creativity and Innovation

THINK CREATIVELY

- Use a wide range of idea-creation techniques (such as brainstorming)
- Create new and worthwhile ideas (both incremental and radical concepts)
- Elaborate, refine, analyze, and evaluate their own ideas in order to improve and maximize creative efforts

WORK CREATIVELY WITH OTHERS

- Develop, implement, and communicate new ideas to others effectively
- Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work
- Demonstrate originality and inventiveness in work and understand the real-world limits to adopting new ideas
- View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes

IMPLEMENT INNOVATIONS

- Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur

Critical Thinking and Problem Solving

REASON EFFECTIVELY

- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation
- Use systems thinking
- Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems
- Make judgments and decisions
- Effectively analyze and evaluate evidence, arguments, claims, and beliefs
- Analyze and evaluate major alternative points of view
- Synthesize and make connections between information and arguments
- Interpret information and draw conclusions based on the best analysis
- Reflect critically on learning experiences and processes

SOLVE PROBLEMS

- Solve different kinds of non-familiar problems in both conventional and innovative ways
- Identify and ask significant questions that clarify various points of view and lead to better solutions

Communication and Collaboration

COMMUNICATE CLEARLY

- Articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts
- Listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions
- Use communication for a range of purposes (e.g. to inform, instruct, motivate, and persuade)
- Utilize multiple media and technologies, and know how to judge their effectiveness a priority as well as assess their impact
- Communicate effectively in diverse environments (including multi-lingual)
- Collaborate with others
- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

Information, Media, and Technology Skills

People in the 21st century live in a technology and media-driven environment, marked by various characteristics, including: 1) access to an abundance of information, 2) rapid changes in technology tools, and 3) the ability to collaborate and make individual contributions on an unprecedented scale. Effective citizens and workers of the 21st century must be able to exhibit a range of functional and critical thinking skills related to information, media, and technology.

Information Literacy

ACCESS AND EVALUATE INFORMATION

- Access information efficiently (time) and effectively (sources)
- Evaluate information critically and competently

USE AND MANAGE INFORMATION

- Use information accurately and creatively for the issue or problem at hand
- Manage the flow of information from a wide variety of sources
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information

Media Literacy

ANALYZE MEDIA

- Understand both how and why media messages are constructed, and for what purposes
- Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media

CREATE MEDIA PRODUCTS

- Understand and utilize the most appropriate media creation tools, characteristics, and conventions
- Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments
- ICT (Information, Communications, and Technology) literacy

APPLY TECHNOLOGY EFFECTIVELY

- Use technology as a tool to research, organize, evaluate, and communicate information
- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies

Life and Career Skills

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills.

Flexibility and Adaptability

ADAPT TO CHANGE

- Adapt to varied roles, job responsibilities, schedules, and contexts
- Work effectively in a climate of ambiguity and changing priorities

BE FLEXIBLE

- Incorporate feedback effectively
- Deal positively with praise, setbacks, and criticism
- Understand, negotiate, and balance diverse views and beliefs to reach workable solutions, particularly in multi-cultural environments

Initiative and Self-Direction

MANAGE GOALS AND TIME

- Set goals with tangible and intangible success criteria
- Balance tactical (short-term) and strategic (long-term) goals
- Utilize time and manage workload efficiently

WORK INDEPENDENTLY

- Monitor, define, prioritize, and complete tasks without direct oversight
- Be self-directed learners
- Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
- Demonstrate initiative to advance skill levels towards a professional level
- Demonstrate commitment to learning as a lifelong process
- Reflect critically on past experiences in order to inform future progress

Social and Cross-Cultural Skills

INTERACT EFFECTIVELY WITH OTHERS

- Know when it is appropriate to listen and when to speak
- Conduct themselves in a respectable, professional manner

WORK EFFECTIVELY IN DIVERSE TEAMS

- Respect cultural differences and work effectively with people from a range of social and cultural backgrounds
- Respond open-mindedly to different ideas and values
- Leverage social and cultural differences to create new ideas and increase both innovation and quality of work

Productivity and Accountability

MANAGE PROJECTS

- Set and meet goals, even in the face of obstacles and competing pressures
- Prioritize, plan, and manage work to achieve the intended result

21ST CENTURY SUPPORT SYSTEMS

The elements described below are the critical systems necessary to ensure student mastery of 21st century skills. 21st century standards, assessments, curriculum, instruction, professional development, and learning environments must be aligned to produce a support system that produces 21st century outcomes for today's students.

21ST CENTURY STANDARDS

- Focus on 21st century skills, content knowledge, and expertise
- Build understanding across and among key subjects as well as 21st century interdisciplinary themes
- Emphasize deep understanding rather than shallow knowledge
- Engage students with the real-world data, tools, and experts they will encounter in college, on the job, and in life; students learn best when actively engaged in solving meaningful problems
- Allow for multiple measures of mastery

ASSESSMENT OF 21ST CENTURY SKILLS

- Support a balance of assessments, including high-quality standardized testing along with effective formative and summative classroom assessments
- Emphasize useful feedback on student performance that is embedded into everyday learning
- Require a balance of technology-enhanced, formative, and summative assessments that measure student mastery of 21st century skills
- Enable development of portfolios of student work that demonstrate mastery of 21st century skills to educators and prospective employers
- Enable a balanced portfolio of measures to assess the educational system's effectiveness in reaching high levels of student competency in 21st century skills

21ST CENTURY CURRICULUM AND INSTRUCTION

- Teach 21st century skills discretely in the context of key subjects and 21st century interdisciplinary themes
- Focus on providing opportunities for applying 21st century skills across content areas and for a competency-based approach to learning
- Enable innovative learning methods that integrate the use of supportive technologies, inquiry- and problem-based approaches and higher order thinking skills
- Encourage the integration of community resources beyond school walls

21ST CENTURY PROFESSIONAL DEVELOPMENT

- Highlight ways teachers can seize opportunities for integrating 21st century skills, tools, and teaching strategies into their classroom practice — and help them identify what activities they can replace/de-emphasize
- Balance direct instruction with project-oriented teaching methods
- Illustrate how a deeper understanding of subject matter can actually enhance problem-solving, critical thinking, and other 21st century skills
- Enable 21st century professional learning communities for teachers that model the kinds of classroom learning that best promotes 21st century skills for students
- Cultivate teachers' ability to identify students' particular learning styles, intelligences, strengths, and weaknesses

PRODUCE RESULTS

- Demonstrate additional attributes associated with producing high quality products including the abilities to:
 - Work positively and ethically
 - Manage time and projects effectively
 - Multi-task
 - Participate actively, as well as be reliable and punctual
 - Present oneself professionally and with proper etiquette
 - Collaborate and cooperate effectively with teams
 - Respect and appreciate team diversity
 - Be accountable for results

Leadership and Responsibility

GUIDE AND LEAD OTHERS

- Use interpersonal and problem-solving skills to influence and guide others toward a goal
- Leverage strengths of others to accomplish a common goal
- Inspire others to reach their very best via example and selflessness
- Demonstrate integrity and ethical behavior in using influence and power

BE RESPONSIBLE TO OTHERS

- Act responsibly with the interests of the larger community in mind
- Help teachers develop their abilities to use various strategies (such as formative assessments) to reach diverse students and create environments that support differentiated teaching and learning
- Support the continuous evaluation of students' 21st century skills development
- Encourage knowledge sharing among communities of practitioners, using face-to-face, virtual, and blended communications
- Use a scalable and sustainable model of professional development

21ST CENTURY LEARNING ENVIRONMENTS

- Create learning practices, human support, and physical environments that will support the teaching and learning of 21st century skill outcomes
- Support professional learning communities that enable educators to collaborate, share best practices, and integrate 21st century skills into classroom practice
- Enable students to learn in relevant, real-world 21st century contexts (e.g., through project-based or other applied work)
- Allow equitable access to quality learning tools, technologies, and resources
- Provide 21st century architectural and interior designs for group, team, and individual learning
- Support expanded community and international involvement in learning, both face-to-face and online

ABOUT BATTELLE FOR KIDS

Battelle for Kids is a national not-for-profit organization committed to collaborating with school systems and communities to realize the power and promise of 21st century learning for every student, without exception.

Formed in 2001, the organization's leadership in 21st century education now encompasses early learning, during school (K-12), and beyond school experiences. The Partnership for 21st Century Learning (P21) joined Battelle for Kids in 2018. P21's members and partners have been pioneers of 21st century learning since 2002. EdLeader21, also a network of Battelle for Kids as of 2017, started its industry-leading network in 2010 and now has more than 220 member districts and schools across 45 states.

As the premier leader in 21st century education, Battelle for Kids innovates and partners with its networks, association and business partners, and school system leaders to design and implement educational experiences that prepare all students to become lifelong learners and contributors in an ever-changing world.

Learn more and get involved at battelleforkids.org/networks/p21.