

The purpose of this document is to provide a reference for definitions and components of the 21st century skills. EnGage advocates that you “take on something doable. Don’t try to implement all of the 21st century skills at once.” Instead, bring them into your classroom by identifying a few that will resonate with your classroom, school, or community and build from there. This focus should not be at the exclusion of the other skills, but rather a focused effort with regard to these specific skills. For more descriptions please reference the EnGage descriptors.

Elementary 21st Century Skills

INDEPENDENT LIFELONG LEARNING

1. Pursue individual learning in areas of interest and curiosity

DIGITAL AGE LITERACY

1. **Basic Literacy** is the language proficiency (in English) and numeracy at levels necessary to achieve goals, and develop knowledge in the Digital Age.
 - Ability to read and understand day-to-day written materials
 - Writing to accomplish day-to-day functions
 - Speaking and understanding English
 - Computing and solving everyday math problems
 - Basic Information Literacy
 - Basic Technological Literacy
2. **Scientific Literacy** is knowledge and understanding of the scientific concepts and processes.
 - Knowledge and understanding of scientific concepts and processes
 - Ability to ask, find, or determine answers to questions derived from curiosity
 - Ability to describe and explain natural phenomena
 - Ability to evaluate scientific information on the basis of evidence, sources, and the methods used to generate it
3. **Economic Literacy** is the ability to identify economic problems, alternatives, costs, and benefits; analyze the incentives in economic situation; and weigh costs against benefits.
 - Using knowledge of costs, benefits, and the limitation of resources to make informed choices
 - Ability to evaluate methods for allocating goods and services by comparing costs and benefits
 - Ability to identify and explain economic incentives that affect behavior
 - Understanding of how numerous factors can influence prices
 - Knowledge of the various roles of public and private economic institutions
4. **Technological Literacy** is knowledge about what technology is, how it works, what purposes it can serve, and how it can be used efficiently and effectively to achieve specific goals.
 - Understanding and modeling of positive, ethical technology uses
 - Use of technology tools to increase productivity
 - Technology use to access, evaluate, process, and synthesize information from a variety of sources
 - Technology use to identify and solve complex problems in real world contexts

5. **Visual Literacy** is the ability to interpret, use, appreciate, and create images and video using both conventional and 21st century media in way that advance thinking, decision-making, communication, and learning.
 - Understanding of basic elements of visual design, technique, and media
 - Understanding of symbols used in electronic media
 - Effective communicators using images
 - Expressive, innovative thinkers and successful problem solvers through the use of visual tools

6. **Information Literacy** is the ability to evaluate information across a range of media.
 - Identifying what information is needed
 - Identifying sources of information and their credibility or relevance
 - Using technology to find information and enhance searches
 - Revising information-gathering strategies
 - Understanding how information accessed addresses the original problem; evaluating credibility and implications
 - Presenting information clearly and accurately
 - Evaluating the impact of the product

7. **Multicultural Literacy** is the ability to understand and appreciate the similarities and differences in the customs, values, and beliefs of one’s own culture and the cultures of others.
 - Awareness of cultural beliefs, values, and sensibilities
 - Appreciation of similarities and differences
 - Knowledge of history
 - Sensitivity to stereotyping and bias
 - Interaction with individuals from different cultures
 - Understanding the cultural norms of technology environments

8. **Global Awareness** is the recognition and understanding of interrelationships among individuals across the globe.
 - Understanding of the U.S. role in international relations
 - Understanding the impact of culture on political relationships
 - Staying current and participating in the global society

INVENTIVE THINKING

1. **Analytical Thinking and Problem Solving** include the cognitive processes of analysis, comparison, inference/interpretation, evaluation, and synthesis applied to a range of academic domains and problem-solving contexts.
 - Analysis
 - Comparison
 - Inference/Interpretation
 - Evaluation
 - Synthesis through the use of contemporary tools

2. **Adaptability/Managing Complexity** is the ability to modify one's thinking, attitudes, or behaviors, as well as the ability to handle multiple goals, tasks, and inputs while understanding and adhering to constraints of time, resources, and systems (e.g. organizational, technological).
 - Attitude toward change
 - Ability to adapt
 - Monitoring for problems, willingness to change strategies
 - Use of self-management strategies
 - Persisting in the face of obstacles
 - Reflecting on past experience to plan future endeavors

3. **Self-Direction** is the ability to set goals related to learning and plan for the achievement of those goals.
 - Goal setting
 - Belief in abilities
 - Goal-directed effort
 - Interest
 - Focusing attention
 - Self-monitoring
 - Help seeking
 - Self-evaluation

4. **Curiosity** is the desire to know or a spark of interest that leads to inquiry.
 - Behavior toward novel objects and topics (manipulating, exploring, asking questions)
 - Persistence
 - Goal-orientation
 - Patterns of thought and testing hypotheses
 - Spontaneous exploration prompted by accidental discovery
 - Interest in learning about current events
 - Motivation

5. **Creativity** is the act of bringing something into existence that is genuinely new and original.
 - Original, unique, and cogent ideas, phrasing, and products
 - Risk-taking despite mistakes
 - Exhibition of curiosity, inquisitiveness, wonder, openness, and excitement
 - Flexibility and adaptability
 - Immersion in challenging learning for intrinsic reasons

6. **Risk-Taking** is the willingness to made mistakes, advocate unconventional or unpopular positions, or tackle extremely challenging problems without obvious solutions.
 - Willingness to tackle challenging tasks
 - Advocating original, unconventional ideas
 - Willingness to allow critical appraisal of work
 - Willingness to make errors

EFFECTIVE COMMUNICATION

1. **Teaming and Collaboration** means cooperative interaction between two or more individuals working together to solve problems, create novel products, or learn and master content.
 - Assuming varied roles
 - Open representation of ideas and concerns
 - Leadership
 - Application of collaborative skills
 - Reflection on collaboration for improvement
 - Commitment to shared goals and responsibilities
 - Sharing personal understandings and resources
 - Listening respectfully and responding constructively
 - Iterative design and redesign of solutions
2. **Interpersonal Skills** include the ability to read and manage the emotions, motivations, and behaviors of oneself and others during social interactions.
 - Emotional intelligence, self-awareness, and self-management
 - Ability to manage one's own behavior
 - Understanding of and sensitivity to others' needs and emotions
 - Managing conflict and communicating effectively
3. **Interactive Communication** is the generation of meaning through exchanges using a range of contemporary tools, transmissions, and processes.
 - Consideration of the features, conventions, and etiquette of interactive communication environments
 - Choice of media
 - Use of a full range of expression (audio, video, text, image, and combinations thereof) to maximize impact on audience
 - Comfort with immediacy of interaction; engaging in appropriate types and levels of 'give-and-take' registering emotional cues
 - Ability to listen well, seek mutual understanding, welcome sharing, and consider another's view
 - Ability to behave responsibly during use of digital communications, especially in situation of anonymity

HIGH PRODUCTIVITY

1. **Prioritizing, Planning, and Managing for Results** involve the ability to achieve the goals of a specific project or problem efficiently and effectively.
 - Framing meaningful questions and exhibiting goal orientation
 - Reflecting on the problem and plotting a possible course of action
 - Managing obstacles
 - Exhibiting leadership qualities
2. **Effective Use of Real-World Tools** (e.g. hardware, software, networking, and peripheral devices used by Information Technology (IT) workers to accomplish 21st century work) is using these tools to communicate, collaborate, solve problems, and accomplish tasks.
 - Understanding the value of a tool to a particular field; becoming comfortable with those tools
 - Learning about content through general technologies and those specific to a field

- Using real-world tools as a bridge between the theory and practice
3. **Ability to Produce Relevant, High-Quality Products** are intellectual, informational, or material products that serve authentic purposes and result from student use of real-world tools to solve or communicate about real-world problems.
 - Quality of content
 - Use of media and technology tools to enhance product
 - Integration and application of technological, communication, and visual literacies
 - Utility and significance of “knowledge products” beyond the classroom
 - Standards for gauging product quality; testing and evaluating solutions

HEALTHFUL LIVING

1. **Physical, Social and Emotional Well-Being**

STEWARDSHIP

1. **Personal Responsibility** is the ability of an individual to achieve balance, integrity, and quality of life as a citizen and a learner.
 - Recognizing the importance of adhering to ethical guideline and protocols
 - Recognizing that personal choices have consequences and accepting them
 - Responsible use of resources
2. **Social and Civic Responsibility** is the ability to manage self and situations govern in a way that promotes public good and protects society, the environment, and democratic ideals.
 - Understanding of the role information plans in a democratic society
 - Involvement in public policy issues
 - Awareness of ethical issues raised by innovation
 - Promotion of positive civic change to advance the public good
3. **Commitment to Compassion and Caring for Others**

NOTE: The enGauge 21st Century Skills (2003 NCREL/Metiri Group) and the Partnership for 21st Century Skills frameworks and the NCSD Graduate Profile provide a foundation for the NCSD Elementary Graduate Profile.