21st Century Learning

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 priori 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-suffused 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. To be effective in the 21st century, citizens and workers 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