

## **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 environment 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.

### **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, value, 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 without dominating
- Use social skills in order to avoid conflict and maintain happiness

#### **Think Interdependently**

- Realize that a group can accomplish more than an individual
- Be sensitive of the needs of your peers and do what you can to help them
- Listen to and strongly consider the ideas of others
- Value the individual contributions made by each team member

## **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
- Conceive creative solutions to problems after examining alternative possibilities from many angles

### **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

### **Implement Innovations**

- Generate tangible, useful, novel, original, clever or ingenious products, solutions, and techniques
- Work on tasks because of the challenges they present rather than the material rewards – Be intrinsically motivated

### **Apply Past Knowledge to New Situations**

- Make connections by referring to past experiences
- Draw from experience when confronted with new and perplexing problems
- Abstract meaning from one experience, carry it forth, and apply it in a new and novel situation
- Recognize similarities between past experiences and current challenges and draw from what was learned

## **CRITICAL THINKING AND PROBLEM SOLVING**

### **Think Critically**

- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation
- 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 and alternative points of view
- Interpret information and draw conclusions based on the best analysis

### **Ask Questions**

- Ask questions to fill in the gaps between what is known and what is unknown
- Ask questions at all levels of Bloom's Taxonomy of Thinking, but match the purpose with the correct type of question

### **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

## **REFLECTION AND AWARENESS**

### **Metacognition (Thinking About Our Thinking)**

- Know what you know and know what you don't know
- Be conscious of the steps and strategies during the act of problem solving
- Develop a plan of action, maintain that plan in mind over a period of time, then reflect back on and evaluate the plan upon its completion
- Be aware of one's actions and the effect of those actions on others and on the environment
- Shift gears if a plan isn't working
- Explain your thinking and the strategies used while making decisions

### **Reflect and Synthesize**

- Reflect critically on learning experiences and processes
- Synthesize and make connections between information and arguments

## **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, jobs, responsibilities, schedules, and contexts
- Work effectively in a climate of ambiguity and changing priorities

#### **Think and Learn Flexibly**

- Change your mind when you receive additional data
- Know when it is appropriate to be broad and global in your thinking and when a situation requires detailed precision
- Understand that there are multiple correct ways to solve a problem

#### **Demonstrate Learning Through All Intelligence Pathways**

- Interpersonal – understand other people
- Intrapersonal – understand yourself
- Logical-Mathematical – understand causal systems
- Visual-Spatial – present the world in your mind
- Verbal-Linguistic – use language to express yourself
- Bodily-Kinesthetic – use your body as your media
- Musical-Rhythmic – use music and patterns
- Naturalist – discriminate among living things

## **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

### **Be a Risk-Taker**

- Take educated risks and frequently push the boundaries of your perceived limits
- Be resilient if your risk-taking isn't successful - Don't worry what others think
- Know when risks are not worth taking
- View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes

### **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

### **Persist Despite Setbacks**

- Stick to the task until it is completed
- Stay focused on your task without distraction
- Have a repertoire of strategies to solve problems if one isn't working

### **Be Curious**

- Inquire rather than give answers
- Identify new problems that need to be solved and probe into their causes
- Enjoy figuring out problems without adult assistance
- Feel compelled, enthusiastic and passionate about learning, inquiring and mastering

### **Learn Continuously**

- Value doubt rather than certainty
- Explore alternatives rather than know which choice is correct
- Constantly be on the lookout for new and better ways of doing things
- Believe that problems, situations, tensions, conflicts and circumstances are valuable opportunities to learn
- Invite the unknown, the creative, and the inspirational
- Be humble

## **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

### **Find Humor in Appropriate Situations**

- Perceive situations from an original and often interesting vantage point
- Appreciate and understand others' humor
- Be verbally playful when interacting with others
- Be able to laugh at situations and yourself

## **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

### **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
  - Seek feedback and respond positively to constructive criticism & setbacks
  - Attend to detail, precision, and orderly progressions

## **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 Yourself and Others**

- Monitor, define, prioritize and complete tasks without direct oversight
- Act responsibly with the interests of the larger community in mind
- Understand, negotiate and balance diverse views and beliefs to reach workable solutions, particularly in multi-cultural environments
- Perceive others' points of view, empathize, predict how others are thinking, and anticipate potential misunderstandings

## **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