

## Governance Process Ends Monitoring - Board Policy 2020

### **Fundamental 5**

**Including 21st Century Thinking and Process Skills such as critical thinking, cross-discipline thinking, creativity, innovation, leadership, collaboration, communication, problem solving, and information and technology literacy in curriculum design**

Learning and innovation skills increasingly are being recognized as those that separate students who are prepared for non-routine jobs and work environments in the 21st century, and those who are not. Focusing on creativity, critical thinking, communication and collaboration are essential to prepare students for their future. These skills are fostered across disciplines and throughout all grade levels.

Thinking and process skills promote rigor and relevance for students, as we expect students to command ownership of their learning. Instructional technology is used as a resource and tool to learn, create and solve authentic problems. These 21st century skills empower students to challenge, critique, evaluate, differentiate and apply their knowledge and thinking.

The superintendent interprets the following elements of Fundamental 5 of the 2020 Vision:

#### **Critical Thinking and Problem Solving**

Learners will reason effectively and:

1. Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation
2. Use *systems thinking*
3. Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems

Learners will make judgments, decisions and:

1. Effectively analyze and evaluate evidence, arguments, claims and beliefs
2. Analyze and evaluate major alternative points of view
3. Synthesize and make connections between information and arguments
4. Interpret information and draw conclusions based on the best analyzes
5. Reflect critically on learning experiences and processes
6. Solve different kinds of non-familiar problems in both conventional and innovative ways
7. Identify and ask significant questions that clarify various points of view and lead to better solutions

#### **Cross-Discipline Thinking**

Students apply what they have learned across content areas. They go beyond merely knowing to using and applying the skills and knowledge they have acquired in a productive manner.

#### **Creativity and Innovation**

Students are encouraged to think and act in ways that lead to new and sometimes unique thinking. Innovation requires an environment where students feel safe making mistakes and are encouraged to learn from them.

Learners will think creatively and:

1. Use a wide range of idea creation techniques (such as brainstorming)
2. Create new and worthwhile ideas (both incremental and radical concepts)
3. Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts
4. Develop, implement and communicate new ideas to others effectively
5. Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work
6. Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas
7. View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes

Learners will implement innovation and act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur.

## **Communication, Collaboration, and Leadership**

Social and emotional learning (SEL) includes communication, collaboration, and leadership skills. These skills are valuable life skills for all learners and will help prepare them for various work environments. SEL skills include the following and can be developed in schools and classrooms in a number of ways, including through leadership opportunities.

Learners will communicate clearly and:

1. Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts in all content areas.
2. Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions
3. Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)
4. Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact
5. Communicate effectively in diverse environments (including -bilingual)

Learners will collaborate with others to:

1. Demonstrate ability to work effectively and respectfully with diverse teams
2. Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
3. Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

Learners will be offered leadership opportunities through:

1. classroom procedures and routines that put students "in charge" of activities and responsibilities
2. classroom and school settings where students can be leaders in improving school culture
3. extracurricular activities that allow learners to lead
4. the freedom to struggle and even fail, but with support and encouragement to continue trying

## **Information and technology literacy in curriculum design**

People in the 21st century live in a technology and media-suffused environment, marked by various characteristics, including: access to an abundance of information; rapid changes in technology tools; and the ability to collaborate and make individual contributions on an unprecedented scale.

To be effective in the 21st century, learners must be able to exhibit a range of functional and critical thinking skills related to information, media and technology.

For information literacy, learners will:

1. Access information efficiently (time) and effectively (sources)
2. Evaluate information critically and competently
3. Use information accurately and creatively for the issue or problem at hand
4. Manage the flow of information from a wide variety of sources
5. Apply a fundamental understanding of the ethical and legal issues surrounding the access and use of information
6. Use technology as a tool to research, organize, evaluate and communicate information
7. Use digital technologies (computers, handhelds, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate, create and present information in compelling and rich ways to successfully function in a knowledge economy that includes the ability to produce and use knowledge in new and innovative ways.
8. Apply a fundamental understanding of the ethical and legal issues surrounding the access and use of information technologies

For media literacy, learners will analyze media to:

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

For technology literacy, students will:

1. Use technology as a tool to research, organize, evaluate and communicate information

2. 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
3. Apply a fundamental understanding of the ethical and legal issues surrounding the access and use of information technologies

Reference: <http://www.p21.org/>

The Website -Partnership for 21st Century Skills provided information contained in the interpretations above.