



COLORADO ACADEMIC STANDARDS

All Students, All Standards

Colorado Essential Skills



COLORADO
Department of Education

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Purpose

In 2008, Colorado passed legislation (Senate Bill 212, also known as CAP4K) that requires the State Board of Education to adopt content standards that prepare students for the 21st century workforce and for active citizenship upon receiving a high school diploma. In addition to the requirement that students meet those content standards, students must also (to the extent practicable) develop and demonstrate skills (Fig. 1) essential for success in professional life. The same law also requires a revision to the Colorado Academic standards by July 1, 2018, and every six years thereafter.

During the 2008-10 standards development process, these skills were referred to as “21st Century Skills.” However, the standards review and revision process created an opportunity for these skills to be revisited and clarified. In an effort to update Colorado’s 21st Century Skills and better align these skills from preschool through postsecondary, the Colorado Department of Education brought together a cross-unit team of specialists to create this Essential Skills Guidance Resource document that would serve as a supplement to the revised Colorado Academic Standards. The intention of this guiding document is to clearly identify how these statutorily identified skills manifest in early childhood and continue through their postsecondary pursuits leading to in-demand employment skills. Developmentally appropriate support for these skills should occur in all subject areas throughout students’ academic careers. Understanding the importance of these skills is the first step in achieving life-long success for all students.

Figure 1: Essential Skills Required in the Colorado Academic Standards

- creativity and innovation skills;
- critical-thinking and problem-solving skills
- communication and collaboration skills; social and cultural awareness; civic engagement
- initiative and self-direction;
- flexibility;
- productivity and accountability;
- character and leadership;
- the ability to use the information and communications technologies to find, evaluate, create and communicate information

Essential Skills Framework Development

The framework for the Essential Skills document was influenced by the groundwork laid by the in-demand skills identified in the 2015 [Colorado Talent Pipeline Report](#). The Pipeline report was authored by the Colorado Workforce Development Council in partnership with a number of state agencies.¹ The goal of this publication was to explore Colorado jobs that have high growth rates in an effort to better align student skills with behaviors necessary for successful employment in Colorado. To that end, the group “... identified 20 core skills necessary to enter the workforce or continue education beyond high school; these include skills such as critical thinking, creativity, self-direction, cultural awareness, time management and self-advocacy” (CWDC, 2016, p. 5). These skills were grouped under four core categories of Entrepreneurial, Personal, Civic/Interpersonal and Professional skills to add greater clarity to the dispositions that all graduates should demonstrate. This Essential Skills document uses these core skills categories to group the essential P – 12 academic skills from CAP4K to enable focus on the development of postsecondary and workforce skills that Colorado graduates should demonstrate.

As this document was in the process of refinement, CDE sought feedback from the public and other statewide participants in business and industry, education, non-profit organizations and government sectors. This process occurred throughout 2017, helping to improve the final version of this resource guide.

The Essential Skills resource document has been developed to ensure that the core skills can be meaningfully applied regardless of age/grade. The framework relies upon the Dreyfus model (Dreyfus & Dreyfus, 1980, 2005) which delineates the acquisition of skills from Novice, Advanced Beginner, Competent, Proficient and Expert. The model “... describes changes in skill performance as moving from reliance on rules, to analysis, toward intuition based on past experience” (Maine Department of Education (n.d.), p.iii).

With the understanding that these skills must incorporate developmental stages relevant for a preschool-12 audience, the Dreyfus model has been modified to **Novice**, **Advanced Beginner**, **Strategic Learner**, and **Emerging Expert**, which are also found in a similar document produced by the Maine Department of Education (Maine Department of Education (n.d.), p.iii). The demonstration of each of these essential skills are cumulative as indicated by the word and that resides at the beginning of each subsequent indicator. For example, an advanced beginner in the informed risk-taking category under personal skills should be able to “demonstrate a willingness to try new things, *and* demonstrate flexibility, imagination and inventiveness in taking on tasks and activities.”

¹ Department of Higher Education; Department of Education; Department of Labor and Employment; Office of Economic Development and International Trade; Office of State Planning and Budgeting; State Demography Office at the Department of Local Affairs.

Personal Skills²

A Colorado graduate demonstrates personal skills through self-awareness, initiative and self-direction, personal responsibility and self-management, adaptability and flexibility, and perseverance and resilience. A student with these skills can:

	Novice	Advanced Beginner	Strategic Learner	Emerging Expert
Self-Awareness	Accurately recognize one's own emotions, thoughts and values and how they influence behavior	... and appropriately express one's own emotions, thoughts and values and identify how they influence behavior	... and assess personal strengths and limitations, with a well-grounded sense of confidence, optimism and a 'growth mindset'	... and adapt to environments with appropriate emotions and behaviors, demonstrate personal awareness through the development of positive relationships
Initiative/ Self-Direction	Recognize personal characteristics, preferences, thoughts and strengths	... and pursue opportunities to engage and learn interests	... and apply knowledge to set goals, make informed decisions and transfer to new contexts	... and make responsibility for and pursue opportunities
Personal Responsibility	Handle impulses and behavior with minimal direction	... and discern differences of effective and ineffective processes, communication and tasks	... and regulate one's emotions, thoughts and behaviors in different situations	... and develop, plan and organize self-behavior
Adaptability/ Flexibility	Recognize emotional response to ideas that differ from one's own	... and regulate reactions to differing perspectives	... and look for and value in different perspectives expressed by others	... and demonstrate ways to adapt and reach workable solutions
Perseverance/ Resilience	Resist distractions, maintain attention, and continue the task at hand through frustration or challenges	... and set goals and develop strategies to remain focused on learning goals	... and focus on learning goals by employing motivation and familiar strategies for engagement and evaluate progress, making necessary changes to stay the course	... and work effectively in a climate of ambiguity and changing priorities

² The Personal Skills chart draws heavily from The Partnership for 21st Century Skills (2009) and Maine Department of Education (n.d.).

Entrepreneurial Skills³

A Colorado graduate demonstrates entrepreneurial skills through critical thinking and problem-solving, creativity and innovation, inquiry and analysis, and risk-taking. A student with these skills can:

	Novice	Advanced Beginner	Strategic Learner	Emerging Expert
Critical Thinking/ Problem Solving	Recognize that problems can be identified and possible solutions can be generated	... and define the problem using a variety of strategies	... and make connections between information gathered and personal experiences to apply and/or test solutions	... and “interpret information and draw conclusions based upon information gathered to formulate a new problem.” ⁴
Creativity/ Innovation	Demonstrate curiosity, imagination and eagerness to learn more	... and build on personal experience to specify a challenging problem to investigate	... and engage in novel approaches, moves, directions, ideas and/or perspectives	... and synthesize ideas in original and surprising ways
Inquiry/ Analysis	Recognize and describe cause-and-effect relationships and patterns in everyday experiences	... and investigate to form hypotheses, make observations and draw conclusions	... and test hypotheses/prototype with planned process for getting feedback	... and make predictions and design data/information collection and analysis strategies
Informed Risk Taking	Demonstrate a willingness to try new things	... and demonstrate flexibility, imagination and inventiveness in taking on tasks and activities	... and innovate from failure, connect learning across domains and recognize new opportunities	... and act on creative ideas to make a tangible and useful contribution

³ The Entrepreneurial Skills chart draws heavily from The Partnership for 21st Century Skills (2009) and Maine Department of Education (n.d.).

⁴ The Partnership for 21st Century Skills (2009). P21 framework definitions. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf.

Civic/Interpersonal Skills⁵

A Colorado graduate demonstrates civic/interpersonal skills through collaboration and teamwork, strong communication skills, global and cultural awareness, civic engagement and strong character. A student with these skills can:

	Novice	Advanced Beginner	Strategic Learner	Emerging Expert
Collaboration/ Teamwork	Recognize how personal actions have had a positive or negative impact on others with feedback as needed	... and recognize how members of a community rely on each other, considering personal contributions as applicable	... and “follow a process identified by others to help generate ideas, negotiate roles and responsibilities, and respects consensus in decision making” ⁶	... and use interpersonal skills to learn and work with individuals from diverse backgrounds
Communication (using information and communications technologies)	Articulate personal strengths and challenges using different forms of communication to express oneself	... and consider purpose, formality of context and audience, and distinct cultural norms when planning content, mode, delivery and expression	... and “establish goals for communication and plan out steps accordingly” ⁷	... and articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts (including multi-lingual)
Global/ Cultural Awareness	Compare attitudes and beliefs as an individual to others	... and identify and explain multiple perspectives (cultural, global) when exploring events, ideas and issues	... and plan and evaluate complex solutions to global challenges that are appropriate to their contexts using multiple disciplinary perspectives (such as cultural, historical and scientific)	... and apply knowledge and skills to implement sophisticated, appropriate and workable solutions to address complex global problems using interdisciplinary perspectives independently or with others
Civic Engagement	Identify and reflect upon personal connections to community systems	... and connect knowledge (facts, theories, etc.) from personal ideas and understandings to civic engagement	... and participate in social or community activities	... and “participate effectively in civic life” ⁸
Character	Demonstrate an understanding of cause and effect related to personal decisions	... and state a position and reflect on possible objections to, assumptions and implications of the position	... and apply ethical perspectives/ concepts to an ethical question/ situation/ scenario	... and “apply a fundamental understanding of the ethical/legal issues in many context including the access and use of information” ⁹

⁵ The Civic/Interpersonal Skills chart draws heavily from The Partnership for 21st Century Skills (2009) and Maine Department of Education (n.d.).

⁶ Maine Department of Education (n.d.). Understanding Maine’s Guiding Principles report, p.22.

⁷ Ibid, p. 3

⁸ The Partnership for 21st Century Skills (2009). P21 framework definitions. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf.

⁹ Ibid p. 2

Professional Skills¹⁰

A Colorado graduate demonstrates professional skills through task and time management, career awareness, information literacy, productivity and accountability, self-advocacy and leadership. A student with these skills can:

	Novice	Advanced Beginner	Strategic Learner	Emerging Expert
Task/ Time Management	Articulate task requirements and identify deadlines	... and develop and utilize basic task and time-management strategies effectively	... and demonstrate task-management attributes associated with producing high-quality products including the abilities to: <ul style="list-style-type: none"> • Work positively and ethically • Manage time and projects effectively • Multi-task • Clearly communicating with others 	... and set personal goals and take responsibility for those goals through reflection upon prior outcomes
Career Awareness	Ask questions and learn more about careers and other life pursuits	... and connect careers and other life pursuits to personal interest	... and “pursue a path of inquiry initiated by personal connections to careers and other life pursuits” ¹¹	... and demonstrate knowledge, understanding and personal awareness of how one’s dreams and interests translate into career fulfillment and career pathways available in local, regional, national and global arenas
Information Literacy	Articulate the most effective options to access information needed for a specific purpose	... and identify and evaluate key attributes of a variety of information sources (e.g., books, newspapers, online or print articles, social media) for validity	... and “examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors” ¹²	... and “analyze both how and why media messages are constructed and for what purposes,” ¹³ and use information accurately, ethically and creatively for the issue or problem at hand
Use Information and Communications Technologies	Find information through the use of technologies	... and communicate information through the use of technologies	... and evaluate information through the use of technologies	... and create information through the use of technologies
Self-Advocacy	Appropriately express a range of emotions to communicate personal ideas/needs	... and ask questions to develop further personal understanding	... and demonstrate confidence in sharing ideas/feelings	... and demonstrate an accurate and clear sense of goals, abilities, needs and know how to request and/or acquire them
Leadership	Model positive behaviors for others	... and demonstrate leadership skills (e.g., organizing others, taking initiative, team-building)	... and demonstrate confidence while recognizing that personal actions impact others	...and educate and inspire others to realize their potential

¹⁰ The Professional Skills chart draws heavily from The Partnership for 21st Century Skills (2009) and Maine Department of Education (n.d.).

¹¹ Maine Department of Education (n.d.). Understanding Maine’s Guiding Principles report, p.26.

¹² The Partnership for 21st Century Skills (2009). P21 framework definitions, p.5. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf.

¹³ Ibid p. 5

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