Milestones for Improving Learning and Education (MILE) Guide for 21st Century Skills
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Milestones

—Learning & Teaching—

ASSESSMENT

- 21ST CENTURY SKILLS-

EARLY STAGE	Subjects. Students master core subjects.	21ST CENTURY CONTEXT Instruction includes some content in a contemporary context.	21ST CENTURY CONTENT There is little content available outside traditional core subject areas.	Learning skills, which include higher order thinking, communication skills, self-direction, collaboration, initiative and creative thinking, are occasionally included in educational objectives primarily through curriculum and teaching strategies. Learning skills are occasionally integrated into content.	Students regularly use traditional tools. 100% of students have access to traditional tools. 10% or more of teachers use 21st century tools.	Academic success is focused on the mastery of core subject content. Teaching focuses on student mastery of core subject knowledge and improving student performance. Students, teachers and parents rarely collaborate to monitor student progress. Assessments are pencil-and-paper-based and few assessments use technology.	The teacher acts as a provider of knowledge, a subject matter expert and a role model for teaching. Teachers occasionally use adaptable and flexible teaching strategies. Teachers occasionally integrate learning skills when teaching content. 10% or more of teachers integrate the use of 21st century tools into their curriculum.	Professional development primarily supports content knowledge and administrative processes. Professional development occasionally integrates the application of learning skills into teaching strategies. 10% or more of professional development is accessed through the use of technology. Some teachers use professional development to build a high level of competency in their content area.	Administrators create visions for student achievement that focus on the mastery of content. Administrators emphasize the importance of learning skills as a successful strategy to demonstrate proficiency in content areas. Few administrators promote a vision that incorporates the integration of 21st century tools into the curriculum.	Most schools and districts have technology plans that provide access to 21st century tools.	Technology planning primarily addresses infrastructure and equipment requirements. Resource planning rarely addresses educational objectives. Educational and administrative planning requirements are not aligned with technology planning. Few student and teacher performance metrics are linked to resource management decisions.	System planning is focused on the acquisition of technology and traditional tools. Few services or operations are connected and there is significant overlap in workload. Few teachers and administrators plan for technology use to supplement classroom resources. Technology support is erratic and takes several weeks for requests to be met. Technology is rarely updated and individual technology needs are not consistently met.	Administrators demonstrate effective use of traditional management techniques and traditional tools. Administrators rarely demonstrate effective use of technology in management of their schools or districts or use data-driven decision-making. Few administrators are proficient in their use of technology in the application of creating curriculum, assessment and alignment of standards.	Educational policymaking focuses on content mastery and administrative processes. Funding allocation supports and encourages content mastery. Some curriculum and educational objectives, including state standards, are aligned with assessment. Some educational objectives are focused on content mastery and include learning skills. Licensure of educators and accreditation of teacher education institutions focus on pedagogy and mastery of content areas.	Schools and districts are evaluated on student achievement in core subjects. Administrators are evaluated based on their administrative abilities, including creating effective policies and procedures that meet district goals, needs and budgets. Some districts are evaluated on their professional development programs and the creation of effective support processes for teachers and staff.	Parents are apprised of their child's mastery of core subjects and occasionally meet with teachers to evaluate their child's progress. Schools and districts use traditional tools, such as newsletters and meetings, to facilitate dialogue among parents and teachers.	Schools and districts occasionally work together with community and youth organizations. Some students participate	K–12 and higher education occasionally work together to prepare students for success in higher education but rarely include 21st century skills. Research is focused on teaching and learning and is rarely shared with K–12 stakeholders. Schools of education focus on preparing future teachers who demonstrate content competency in their subject areas. 10% or more of students in schools of education have ongoing mentoring with experienced K–12 classroom teachers and administrators.	support core subject mastery and K–12 leaders look to them as a source for traditional learning tools. Educators look to content providers to align primary and supplementary resources to core academic standards. Educators look to content providers to correlate resources to	K–12 and private sector partners rarely work together to address student preparation for success in the workplace and higher education. Few K–12 students are mentored in the development of workplace skills or have access to internships and other programs that provide 21st century context. Businesses support education and encourage programs that implement technology.
TRANSITIONAL STAGE	Students master core subjects with some 21st century content and context.	Instruction includes a significant amount of content in a contemporary context.	There is some content available and used outside traditional core subject areas, including global awareness and civic and business literacy.	Learning skills often are included in educational objectives and teaching strategies. Learning skills often are integrated into content.	Students occasionally use 21st century tools. 50% or more of students have access to 21st century tools. 50% or more of teachers use 21st century tools.	Students begin to be assessed on their understanding and application of learning skills. Assessment is more frequent. Most teachers use classroom assessments to measure the effective application and integration of learning skills and 21st century tools. Teachers begin to use student assessment results to improve teaching efficacy. Students, teachers and parents often collaborate to monitor student progress in achieving learning goals and use assessment to evaluate long-term student progress. Some assessments use technology but most assessments continue to be pencil-and-paper-based.	The teacher acts as a subject matter expert, a facilitator for information and a role model for both teaching and learning. Teachers often use adaptable and flexible teaching strategies that integrate 21st century skills. Teachers frequently integrate learning skills when teaching content. 50% or more of teachers integrate the use of 21st century tools into their curriculum.	Professional development often integrates the application of learning skills into teaching strategies. Professional development occasionally integrates the application of contemporary context and content into teaching strategies. 50% or more of professional development is accessed through the use of 21st century tools. Most teachers use 21st century skills to work on advanced certifications or credentialing.	Some administrators include the integration of 21st century skills as part of their overall vision for student achievement. Some administrators facilitate and direct the programs and creation of assessment, professional development and work environments that encourage the integration of 21st century skills into the curriculum.	All schools and districts have implemented 21st century tools and have started to integrate 21st century skills. 50% or more of students have access to environments that advance 21st century skills.	Educational planning and overall enterprise planning are occasionally aligned with technology planning. Resource planning adequately and substantively addresses and funds educational objectives. Resource allocation and management planning frequently incorporate student and teacher performance metrics.	System planning has some focus on the integration of 21st century tools into educational strategies. Some services and operations are connected and there is minimal overlap in workload. Some teachers and administrators integrate the use of 21st century tools to supplement classroom resources. Technology support is available on a regular basis and problems are handled within a few days. Technology is refreshed every five to seven years.	management techniques and 21st century tools. Many administrators are proficient in the use of 21st century tools in the application of creating curriculum, assessment and alignment of standards. Administrators occasionally demonstrate effective use of 21st century tools in the management of	Policymaking focuses on the integration of learning skills and 21st century tools into content. Funding allocation supports and encourages the integration of learning skills and 21st century tools into content. Many curriculum and educational objectives, including assessment, are aligned with state standards. Many educational objectives include 21st century skills. Licensure of educators and accreditation of teacher education institutions focus on newer teaching strategies, learning skills and 21st century tools.	Many districts are evaluated on student achievement through the integration of learning skills and 21st century tools into core subjects. Administrators are evaluated on their administrative effectiveness and begin to be evaluated on the incorporation of 21st century skills into district curricula, the effectiveness and the streamlining of administrative processes and the development of long-term planning. Many states and districts are evaluated on their professional development programs and the creation of effective support processes for teachers and staff.	tools to facilitate dialogue among parents, teachers and students and have ongoing systems in place for parent-school dialogue. Parents, with support of the school system and community programs,	Formal relationships between schools and community organizations begin to extend the school into the community and the community into the school. Community programs incorporate learning skills and 21st century tools as part of student development, leadership and learning initiatives. Many students participate in community programs that help them master 21st century skills. Many schools provide the students with after-school access to 21st century tools.	K–12 schools and higher education programs often work together to address student preparation for success in higher education and includes the application of 21st century skills. Research is focused on 21st century skills and results are occasionally shared with K–12 schools. Many teacher preparation programs have partnerships to promote the alignment of curriculum and standards to K–12 education strategies and assessments. Schools of education begin to focus on preparing future teachers who are proficient in 21st century skills. 50% or more of students in the schools of education have ongoing mentoring with experienced K–12 classroom teachers, and the mentoring programs include a focus on 21st century skills.	work with K–12 leaders to design 21st century tools. Content providers create some content and resources that include learning skills and incorporate 21st century tools. Content providers work with K–12 leaders to embed 21st century skills into all new content and resources.	K–12 and private sector partners occasionally work together to address student preparation for the workplace and higher education, including a mastery of 21st century skills. Some K–12 students are mentored in the development of workplace skills and/or have access to internships and other programs that provide interaction with business. Businesses support education and begin to encourage programs that promote 21st century skills.
Z1 ST CENTURY	Students master core subjects in a contemporary context. Instruction always includes content in a contemporary context through the incorporation of relevant examples, applications and settings. Extensive contemporary content is available and used by students, including global awareness, civic and business literacy. Where applicable, schools create 21st century content that is relevant to the economic needs of their region, such as biotechnology, manufacturing or agricultural technology. Students can fully integrate core subjects and 21st century skills. Students can use learning material in a current context. That allows them to function effectively in personal, commodities of the content with the ability to apply it in interdisciplinary studies. Stude learning skills continually. Students also have an ability to use the traditional and 21st century context. Students also have the ability to integrate 21st century.			nmunity and workplace environments. Students have a dents have the skills to learn how to learn and to apply century tools available and know how to use 21st century		All assessment is learner-centered, formative, context-specific, ongoing and rooted in teaching strategies. All teachers use classroom assessments that demonstrate evidence of student performance in core subjects and 21st century skills. All teachers share with parents and students the information needed to monitor student progress in achieving learning goals. Students, teachers and parents always collaborate to monitor student progress in achieving learning goals and use assessment to evaluate long-term student progress. Most assessments use technology and record student performance as a means of tracking information over time.	for teaching and learning. All teachers use adaptable and flexible teaching and learning strategies that integrate 21st century skills. All teachers act as role models in the application and use of 21st century skills. Professional development supports the application of 21st century skills in teaching and learning strategies and classroom management practices. All teachers access professional development through 21st century tools when applicable. All teachers access professional development through 21st century tools when applicable. All teachers access professional development to reinforce their content competency and integrate 21st century skills.		All administrators include the integration of 21st century skills as part of their overall vision for student achievement and act as role models for such integration. All administrators promote, facilitate and direct stakeholders to develop broad and inclusive plans for curriculum, resources and operations that integrate 21st century skills into every aspect of learning, teaching and administrating.	Educational goals, teaching strategies and assessments reflect all of the needs of a diverse student population. 21st century tools are equitably distributed and there is access through homes, community centers, libraries and after-school programs. 100% of students have access to environments that advance 21st century skills.	administrators with seamless access to 21st century tools and technology in school, at home and any other place where learning activities are envisioned. There is a process for handling technology support, problems are addressed within 24 hours and technology is refreshed every three to four years. All district services and operations are connected and there is seamless integration of departments.		Administrators regularly use innovative management techniques, data-driven decision making and 21st century tools, and continually participate in professional development. All administrators are proficient in the use of 21st century tools in the application of creating curriculum, assessment and alignment of standards. Administrators always demonstrate effective use of 21st century learning tools in management and act as role models in the usage.	Policymaking focuses on the integration of 21st century skills into content mastery. Funding allocation supports and encourages the integration of 21st century skills into content. All curriculum and educational objectives, including state standards, are aligned with assessment. All curriculum and educational objectives, including standards, include 21st century skills. Licensure of educators and accreditation of teacher education institutions focus on the most effective research-based teaching strategies, learning strategies and 21st century skills.	All schools and districts are evaluated on student achievement of 21st century skills in every aspect of teaching and learning. All administrators, schools and districts are evaluated based on the systemic incorporation of 21st century skills and the efficiency and productivity of educational programs. All districts are evaluated on their professional development programs, which include 21st century skills and the creation of effective support processes for teachers and staff.	Parents, students and teachers collaborate to enable each child to obtain an education that includes the mastery of core subjects and 21st century skills. Schools and districts frequently use 21st century tools to facilitate dialogue among parents, teachers and students. Most parents have a mastery of 21st century tools and work towards improving their skills with support of the school system, community programs and business.	Community programs support learner mastery of 21st century skills and coordinate with schools to promote strategies that reinforce 21st century skills. Schools provide students and the community with after-school opportunities to develop 21st century skills.	K–12 schools and higher education programs regularly work together to prepare students for college, including the integration of content and 21st century skills. Research focuses on teaching and learning with the integration of 21st century skills and results are always shared with K–12 schools. All teacher preparation programs work to promote the alignment of their programs to K–12 education strategies with 21st century skills. All teacher preparation programs graduate teachers who are proficient in their content area and 21st century skills. 100% of students in teacher preparation programs have ongoing mentoring with experienced K–12 classroom teachers and administrators, and programs integrate 21st century skills.	create content and resources that include standards with 21st century skills. Education leaders work with content providers to develop aligned resources, assessments and curriculum integrated with the appropriate 21st century tools and educational systems.	K–12 and private-sector partners regularly work together to ensure student preparation for the work-place and the mastery of 21st century skills. Most K–12 students are mentored in the development of workplace skills and have access to internships and other programs that provide interaction with business. Businesses regularly support educational programs that promote 21st century skills. Businesses, community and education leaders regularly discuss the skills needed for workplace and higher education success.

EQUITABLE

EDUCATIONAL

VISION

PROFESSIONAL

DEVELOPMENT

PEDAGOGY

—Leading & Managing—

& SYSTEM

ALLOCATING

KNOWLEDGE & SKILLS

POLICYMAKING

ACCOUNTABILITY PARENTS

—Partnering—

COMMUNITY

HIGHER EDUCATION CONTENT
& TEACHER PREPARATION PROVIDERS

BUSINESS