Five Town School Districts' Glossary of Terms Related to Proficiency-Based Learning, 2014

21st Century Skills Overarching (cross-curricular) skills needed for a learner to thrive in the 21st century. As cited in the *Education Evolving* Strategic Plan, 21st Century Skills are 1) critical thinking and problem solving, 2) Collaboration, 3) Agility and adaptability, 4) Initiative and entrepreneurialism, 5) Effective oral and written communication, 6) Accessing and analyzing information, 7) Curiosity and imagination. 21st Century Skills have been articulated in a number of places, including *The Partnership for 21st Century Skills* (www.p21.org/index.php). 21st Century Skills are reflected in the *Maine Guiding Principles* (see definition).

Assessment Task designed to elicit a demonstration of learner progress toward reaching a goal or target; and also to collect data to inform instruction.

Accommodations Changes to the classroom structure, both organizationally and instructionally that allows a student to participate. OR Adaptations to the regular curriculum to make it possible for the student to be successful *at benchmark*. OR A change that helps the student overcome or work around a learning problem without changing the standard.

Modifications A change in grade level standards, strategies, curriculum, or assessments to create a learning environment for a specific student. Designates different benchmarks. A change in what is being taught or expected from the student.

Career and Technical Education (CTE) Organized programs designed to provide technical skills proficiency, an industry-recognized credential, and a certificate or associate degree. CTE includes competency-based applied learning that addresses academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills.

Career Education Any opportunity that exists for a student to pursue experience or skill building for implications in a career. An example would be an applied Academic class that teaches coding skills, or an internship with an engineering firm.

College and Career Ready Some sources refer to ***College, Career, and Citizenship Ready***. The goal for learners is to graduate from high school ready to enter into post-secondary level course work (without remediation) or to begin a career track in their chosen field, and to enter into civic life. In a proficiency-based system, demonstrating proficiency in all of the standards is evidence that a learner is college and career ready. (See www.epiconline.org/who-we-are/founder.dot.)

Common Core State Standards (CCSS) A set of standards developed under the direction of the Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center). *The Common Core State Standards for*

English Language and Literacy in History/Social Studies, Science and Technical Subjects and *The Common Core State Standards for Mathematics* have been adopted by a vast majority of states. Maine has incorporated the Common Core into its *Learning Results* (see maine.gov/education/lres/commoncore/index.html).

Competency: See *proficiency*.

Curriculum Organized system of learning composed of three main categories: content, instruction, and assessment. The curriculum describes the structure of a School Administrative Unit's (SAU's) system of learning of content, skills, and habits of mind, as guided by state standards. The curriculum also describes the system of assessment of state and local standards. It is a "map" of how learners will meet and address each of the standards. It is the responsibility of each SAU to develop and adopt its own curriculum.

Customized Learning: See *Learner-Centered Education*.

Declarative Knowledge (DK) Knowledge that is informational (facts, terms) or conceptual (ideas, generalizations, principles).

Depth of Knowledge (DoK) Term used to designate the level of cognitive demand of a standard or task. (See www.maine.gov/education/lres/ela/documents/dok_levels_ela_math-webb.pdf)

Essential Outcome See *Performance Indicator.*

Expanded Learning Opportunity (ELO) An opportunity for a learner to demonstrate achievement of the standards outside of the traditional school setting. This could include afterschool activities, extension programs (e.g., 4H), partnerships with local ecological centers, Career and Technical Education (CTE), internships, early college coursework, independent studies, or other structures designed by the learner in collaboration with the teacher.

Formative Assessment Ongoing assessment (see definition) carried out in order to determine the next appropriate instructional or learner steps.

Habits of Mind Dispositions and habitual behaviors that positively influence learning across disciplines. Some Habits of Mind are encompassed within 21st Century Skills and the *Maine Guiding Principles* (see definitions).

Learner-Centered Education A system in which the learner has a high degree of agency in determining his or her educational path. Customized learning is an example of Learner-Centered Education.

Learning Target/Goal/Objective An explicit statement of what learners will know, understand, or be able to do in a particular context (for example, after a specific lesson or

unit). A defining characteristic of a learning target/goal is that it be clearly measurable.

Local Standards Standards deemed essential by a school district. Includes State Standards (see definition), and any other standards determined by the school district.

Maine Guiding Principles Overarching, interdisciplinary standards that describe the skills and dispositions that most impact learner success. In Maine, as per the *Learning Results*, there are five guiding principles. Each Maine student must leave school as:

1. A clear and effective communicator
2. A self-directed and lifelong learner
3. A creative and practical problem solver
4. A responsible and involved citizen
5. An integrative and informed thinker

Maine *Learning Results*: Parameters for Essential Instruction Standards adopted by the Maine State Legislature. The Maine *Learning Results* standards – which incorporate *The Common Core State Standards for English Language and Literacy in History/Social Studies, Science and Technical Subjects* and *The Common Core State Standards for Mathematics* – articulate the Guiding Principles and content standards for all eight content areas.

Math Practices The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education.

The eight Math Practices are:
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning.

Measurement Topic/Reporting Standard A particular structure of organizing standards and essential outcomes for ease of reporting. It defines the umbrella categories to be used in a report card in each content area to reduce the number of standards being reported.

Multiple Pathways A pathway refers to the type of learning experience in which a student participates. Multiple pathways imply options beyond a traditional classroom setting such as career and technical education, alternative education, apprenticeships, internships,

Advanced Placement, online courses, Adult Education, Dual Enrollment, and gifted and talented. This term does not refer to the multiple ways a student might demonstrate proficiency.

Next Generation Science Standards Science standards being developed by 26 lead states (including Maine) and Achieve based on *A Framework for K-12 Science Education*, a framework developed by the National Research Council.

Performance Assessment (Performance Task) Assessment that measures a student's ability to transfer knowledge and apply complex skills that are replicas of or analogous to the kinds of environments adults regularly encounter. A wide spectrum of activities may qualify as performance assessments. At the simpler end of the spectrum, a physical education teacher may assess a student's ability to cross-country ski by watching the student actually perform the activity (rather than taking a test on it). At the more complex end of the spectrum, a high school may require a student to engage in a months-long senior capstone with external mentors, addressing multiple standards across multiple content areas.

Performance Indicator Expectations in the Maine *Learning Results* standards describing the breadth and depth of learner expectations for a standard. An intermediary benchmark to help support growth toward a standard. In the five town districts, this is what we are referring to as an "Essential Outcome".

Power Standards/Anchor Standards A system by which a local school district organizes the standards addressed in its curriculum. Standards are clustered and prioritized in order to describe what students will be held accountable for in order to advance or to achieve their diploma.

Procedural Knowledge (PK) Knowledge of skills or processes (how to). Includes mental skills/processes and psychomotor skills/processes.

Proficiency Targeted level of achievement or competence in a standard or learning goal.

Proficiency-Based Diploma (a.k.a. Standards-Based Diploma) A diploma that is awarded to the learner upon demonstration of proficiency of the standards.

Proficiency-Based (a.k.a. Standards-Based) Standards are used to guide curriculum. Student progress in demonstrating proficiency of standards is measured and used to determine advancement to higher learning levels.

Proficiency-Based System (a.k.a. Standards-Based System) A school district can be said to have a proficiency-based system when basic structures of the system supports a proficiency-based approach.

Report Card A periodic report of a learner's progress towards achievement of the standards.

Response to Intervention (RTI) Response to Intervention is a proactive framework for educating all learners. In an effort to increase students' educational achievement, RTI provides sound practices for the most efficient and effective resource allocation in schools. The RTI system integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems.

Rubric A tool that communicates expectations of quality around a task. It articulates achievement of a variety of criteria/standards at a variety of levels of complexity.

Example:

Evaluation	4 Exceeds/Exemplary	3 Meets/Complete	2 Partially Meets/Complete	1 Does not Meet/Incomplete
Completed review material activity and questions.	Completed entire review worksheet including practice problems completed with 90% accuracy.	Complete entire worksheet including practice problems completed with 80% accuracy.	The majority of the worksheet is complete with 70% accuracy.	Less then 70% accuracy on the worksheet.
Completed analysis of quadratic model of initial data set.	Quadratic model is accurately represented in both Standard and General Forms. Predicted value is correctly calculated and compared with actual data.	Quadratic model is represented in both forms with 80% accuracy. Predicted value is correctly calculated and compared with actual data.	Quadratic model is represented in one form with 70% accuracy. Predicted value is calculated with 70% accuracy and compared with actual data.	Quadratic model is represented in one form with less then 80% accuracy. Predicted value is not calculated correctly and not compared with actual data.
Created a quadratic model for a new data set.	Data is accurately depicted in tables and graphs with sources cited. Quadratic model is accurately represented in both Standard and General Forms. Predicted values are correctly calculated.	Data is accurately depicted in tables and graphs with sources cited. Quadratic model is accurately represented in one form. Predicted values are correctly calculated.	Data is depicted with 70% accuracy in tables and graphs. Quadratic model is represented in one form.	Data is not depicted in both a table and graph. Quadratic model is represented in only one form.

Effective reflection and analysis of data.	Well thought out written response includes discussion of data and models prediction of future trends as well as possible flaws in argument. Student researches additional data to support their argument.	Well thought out written response includes discussion of data and models prediction of future trends as well as possible flaws in argument.	Written response includes discussion of data and models prediction of future trends.	Written response is not backed by data and models. Shows minimal thought about the data.

Scale
A description of the 4 levels of proficiency relative to a standard.

Example:

4	Student is able to successfully add, multiply, factor and solve a wide variety of polynomials and is able to apply that knowledge to new situations or more complex situations.
3	Student is able to successfully add, multiply, factor and solve polynomials using a variety of techniques.
2	Student is not able to consistently add, multiply, or factor polynomials or is only successful using a limited number of techniques.
1	Student does not demonstrate a basic level of understanding of polynomials or the procedures for adding, multiplying, and factoring polynomials.

Scientific Practices *We use the term "practices" instead of a term such as "skills" to emphasize that engaging in scientific investigation requires not only skill but also knowledge that is specific to each practice.* (NRC *Framework*, 2012, p. 30)

The eight practices of science and engineering that the *Framework* identifies as essential for all students to learn and describes in detail are listed below:

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Standard A clear and concise description of what students should know and be able to do

at a specific stage.

Standards-Based: See *Proficiency-Based*.

Standards-Referenced System Standards are used to guide curriculum and measure student progress. In a standards-referenced system, students generally advance in age-based cohorts (grade levels) and may advance without demonstration of proficiency on specific standards.

State Standards: See Maine *Learning Results:* Parameters for Essential Instruction.

Summative Assessment Assessment (see definition) carried out in order to summarize and record a learner's proficiency up to that point.

Taxonomy of Learning A hierarchical organization of learning and cognitive levels. Taxonomies can be used to (1) design and classify learning objectives, (2) design assessments, (3) unpack standards, and (4) design curriculum (see www.maine.gov/doe/cbp/taxonomieslearning.html for more detail.)

Transcript A summative report of a learner's achievement.

Unpacking a standard A process by which educators, and often students, examine a standard to clarify the expected learning targets/goals embedded in that standard.

Example of describing standards by grain size:

GRADUATION STANDARD: Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.

ESSENTIAL OUTCOME: Analyze how meaning is conveyed in *poetry* through *diction*, *figurative language*, repetition, and *rhyme*.

LEARNING OBJECTIVE: Students will identify and use similes and metaphors to convey meaning.