Characteristics of Standards-based Teaching and Learning: Continuum of Practice

A school may find it useful to ground the Focus of Inquiry for a Learning Walkthrough in an existing framework that provides a common language or reference point for looking at teaching and learning. The *Characteristics of Standards-Based Teaching and Learning: Continuum of Practice (*the *Continuum)* is such a resource.

This overview is divided into sections focused on:

- Organization of the classroom;
- Instructional design and delivery; and
- Student ownership of learning

The *Continuum* provides an overview of seventeen characteristics of standards-based practice, along with related indicators to suggest the level at which the practice is implemented, from Not Evident to Developing to Providing to Sustaining. The *Continuum* makes it easier for a school to articulate the shifts in practice that must take place in order to achieve a Sustaining level of practice. When used in a *Learning* Walkthrough, determinations as to where instructional practice falls on the *Continuum* are based on brief visits to classrooms, and may not necessarily describe the full range of daily practice in those classes. The levels of practice are:

No Evidence: The given standards-based characteristic is not evident or is so infrequent that its impact is negligible during the Learning Walkthrough.

Developing: The standards-based characteristic is emerging in the class. It may include new strategies and techniques that are being tried but are not yet fully developed or implemented consistently. The practice may engage only some students, may intermittently help students to access the content, may be more procedural or mechanical, or may not be based on appropriate learning standards.

Providing: The standards-based characteristic is established in the class. The strategies and techniques are implemented with consistency. The practice engages all students and is used purposefully to allow all students to access the content, understand the concepts, and reach appropriate learning standards.

Sustaining: The standards-based characteristic encompasses practice at the Providing level that has become embedded into classroom culture. Student voice and student ownership of learning are evident.

On rare occasions, observations may yield a **Not Applicable** due to extenuating circumstances that may include students engaging in an assessment during the scheduled observation time or an evacuation of the room due to a fire alarm.

For more information on Learning Walkthroughs and other district support resources, or to share feedback on this tool, visit http://www.doe.mass.edu/sda/ucd/ or email districtassist@doe.mass.edu.

N/A	No Evidence	Developing Examples of Practice	Providing Examples of Practice	Sustaining Examples of Practice
Organization of the Classroom				
1. **Classroom climate** is characterized by respectful behaviors, routines, tone, and discourse.				
		• Rules, procedures, and routines are evident, but respectful discourse (teacher-to-student[s], student[s]-to-teacher, or student-to-student) is not observed.	• There is an expectation that all students will participate, collaborate, and contribute during lessons. • Behavioral expectations are posted and communicated to students. • Positive, respectful language and relationships (teacher-to-student[s], student[s]-to-teacher, and student-to-student) are evident. The teacher models "people first language". • Students demonstrate respect for property and materials. • Students requiring specialized support services participate equitably in classroom routines, and there is evidence of their full membership in the class (e.g., work displayed, name on posted class list). • Classroom instruction promotes risk-taking in learning. • The physical environment optimizes learning for all students (space for individual and collaborative work, minimization of distractions). • Classroom practices and instruction honor the diversity of interests, needs, and strengths of all learners.	• Expectations about supportive learning relationships are explicit, are more student-directed than teacher-modeled, are collaboratively developed, and are supported by all members of the classroom community. • Students demonstrate respect for the learning needs of all students (e.g., use respectful language, support one another). Students use "people first language".

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Visit http://www.disabilityisnatural.com/images/PDF/pfl09.pdf for information concerning "people first language".

N/A	No Evidence	Developing Examples of Practice	Providing Examples of Practice	Sustaining Examples of Practice
2. **Learning objectives** (not simply an agenda or an activity description) for the day's lesson are evident. Applicable language objectives are evident for English language learners.				
		• Learning objective(s) and/or standards are posted as number references or in full text from the *MA Frameworks*. • Objectives are posted but are either not in view of all students, not in student-friendly language, not related to key concepts or big ideas, or not aligned to the standard(s). • Verbal reference to the objective(s) or standard(s) is not made by the teacher or the students.	• The teacher explains and posts the standards-based lesson objective(s) in age-appropriate, student-friendly language. • The teacher relays the objective(s) of the lesson, connects objective(s) to one or more big ideas from previous learning, provides students with a rationale for learning, and revisits lesson goals at the end of the lesson. • Students easily locate learning objectives (e.g., an agenda, poster, handout, audio tape), understand the objective(s), and work toward meeting the objective(s). • Students are able to express their understanding of a lesson's learning objectives. • Appropriate language objectives for LEP students are evident along with identified content objectives from the *MA Frameworks*. • The teacher ensures that all components of the lesson (e.g., learning activities, assessment, homework) contribute to the lesson objectives and to student mastery of the standard(s).	• Students connect to standards-based models of proficiency or exemplary products and can identify learning goals that have been met. • Students grasp the relevance of what they are learning, and can make real-world connections.

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3. **Learning time** is **maximized for all** students.				
		• The teacher facilitates transitions with the loss of some learning time. • Students spend too much time listening to instructions and procedures relative to time spent actively engaged in learning. • Not all students are engaged for the entire class period.	• The teacher establishes a purposeful and well-paced lesson structure with multiple ways for students to enter and engage in the lesson (e.g., activators to open the lesson; summaries for closure; exit tickets for assessment; breaks during learning time). • Students follow classroom routines well enough that minimal time is spent on listening to instructions and organizational details (such as attendance-taking or distribution of class materials). • Students begin work when the class is scheduled to begin. • The teacher scaffolds smooth transitions between learning activities. • The teacher accommodates variability in the amount of time different students need to complete learning tasks.	• Students are self-directed and transition smoothly from one learning experience to another, maximizing learning in the time available.

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Instructional Design and Delivery				
4. Instruction activates students' **prior knowledge** and experience, and supplies **background knowledge**.				
		• Instruction does not access students' prior knowledge or make connections to related content. • The teacher provides a link for the purpose of activating prior knowledge, but not all students make or understand the connection.	• Instructional strategies (such as pre-teaching, cueing, use of multimedia, vocabulary review) activate prior knowledge and maximize accessibility for all students. • The teacher connects current student learning with objectives and concepts from previous lessons, and draws on existing knowledge (e.g., highlighting big ideas, patterns and relationships, activating or supplying background knowledge). • Students respond to opportunities provided by the teacher to make connections between the lesson and personal experience.	• Students deepen their existing knowledge and experience of the world around them, then draw on that knowledge to inform future learning. • Students make interdisciplinary connections, when applicable.
5. **Materials** are aligned to students' varied **educational and developmental needs**.				
		• Materials may be available, but they are neither explicitly included in the design of the lesson nor targeted to support specific students' learning. • Assistive technology is available, but not utilized.	• The teacher supports diverse student learning needs by using varied materials (e.g. manipulatives, visuals, adapted text, graphic organizers, multimedia, audio, kinesthetic). • Assistive technology is utilized where appropriate. • Print materials are customized (color, font size, audio component) to meet students' needs.	• Students access or generate support materials that address their individual learning needs. • Assistive technology is integrated into classroom practice.

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6. Presentation of **content** is designed to meet students' varied **educational and developmental needs.**				
		• The content of the lesson is not differentiated based on each student's level of proficiency.	• The teacher knows the variability of students' abilities, readiness, and learning styles, and appropriately designs learning opportunities. • The teacher provides all students with entry points into lessons, supporting students' vocabulary, language needs and conceptual framework. • Content is revised to maximize access through adaptations, accommodations, and/or modifications (e.g., written text and assessments are accessible through books-on-tape). • Students engage in activities that are appropriate in terms of complexity and pacing for their current level of knowledge and skill, and challenge them to the next level of proficiency. • The teacher models planning, goal-setting and strategy development.	• Students chart their performance and set appropriate goals for what they need to learn to move to the next level(s) of proficiency. • Students choose appropriately challenging activities and assignments.
7. Depth of **content knowledge** is evident throughout the presentation of the lesson.				
		• Content is presented as unrelated facts, procedures, and skills.	• All content explained and/or demonstrated throughout the lesson is accurate. • The teacher explains concepts and ideas in multiple ways to facilitate student understanding (e.g.,sequencing critical features of a concept, information processing strategies). • Connections are made across ideas and strands. • The teacher identifies and corrects misconceptions through exploration and discussion.	• All students demonstrate depth of content knowledge in their class presentations or assignments.

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8. Instruction includes a **range of techniques**, such as direct instruction, facilitation, and modeling.				
		• There is an attempt to vary instruction, but the selection of various techniques is not purposeful. • Instructional strategies do not develop background knowledge, reasoning, or content vocabulary, access prior knowledge or make connections for students. • Techniques used result in over-scaffolding of instruction. • Student ownership of learning is not evident, possibly due to overuse of teacher talk. • Student behavior interferes with implementation of varied instructional techniques. • Students work in small groups, but the purpose and intended outcomes of student work are unclear. • Multiple adults are in the classroom, but roles in supporting implementation of the lesson are unclear.	• Varied instructional strategies target learning objectives. • Varied instructional approaches anchor the lesson in prior knowledge and build content vocabulary. • Lesson design includes means for all students to gain access to lesson content through support from the teacher, other adults in the classroom or peer interactions. • All students learn thinking and reasoning skills and strategies through think-alouds and other meta-cognitive approaches modeled by the teacher. • Sheltering content makes the lesson more comprehensible to students who are not yet proficient in English (strategies help students build background knowledge, develop key vocabulary, and build comprehension). • Appropriately scaffolded instruction makes use of manipulatives, technology, or other means to support student understanding. • All students engage in small group work or activities that align to grade-level standards and learning objectives.	• All students independently utilize methods/strategies, models, and materials. • Lesson design allows students to frequently collaborate to enhance thinking and reasoning skills through think-alouds and other meta-cognitive strategies. • Lesson design supports student exploration through the use of technology and classroom libraries.

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9. **Lesson tasks and guiding questions** lead students to engage in a process of **application, analysis, synthesis, and evaluation.**

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		• There is a predominance of lower-level tasks/questions that only require students to clarify, recall, share knowledge, and engage in simple comprehension tasks. • Students provide one-word or short responses. • Most students fail to respond to higher-level questions. • Student responses reveal misconceptions that are not corrected or addressed. • There is insufficient wait time. • Oral and written questions do not align to grade-level standards and/or learning objectives of the lesson. • Students do not have the opportunity to pursue ideas that are essential to the lesson or apply their learning.	• Probing questions/tasks challenge students to explore concepts/big ideas. • Classroom discourse and assignments engage all students. • In response to questions, activities and assignments, students express opinions and defend their reasoning with evidence while using appropriate content language or visual representations. • Students engage in application, analysis, synthesis, and evaluation. • Strategies support students in formulating their thoughts in response to questions (e.g.,adequate wait time, peer sharing, quick-write). • Students are provided multiple options for expressing what they know (e.g., verbal, written, physical action, use of technology). • Student responses direct discussions and set the context for teachable moments. • Student responses to questions prompt re-teaching to address misconceptions when necessary. • Students pursue ideas that are essential to the lesson. • Oral and written questions align to grade-level standards and objectives. •	• Students ask clarifying, probing, and open-ended questions of their teacher and of one another to examine their thinking and develop a deeper understanding of content. • Students formulate well developed answers. • Students routinely support their answers with evidence. • All students question, contribute, and collaborate throughout the lesson. • Students identify and correct their own misconceptions through exploration and discussion. • Oral and written questions push student thinking beyond grade-level standards and generate connections to related content from across disciplines.

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10. The teacher **paces the lesson** to ensure that all students are **actively engaged**.				
		• Not all students are participating or actively	• The teacher uses time effectively to allow all students meaningful participation.	• All students are engaged in the lesson. • Students utilize available time to contribute and

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		engaged. • Wait time is not effectively provided to allow for the meaningful participation of all students.	• Wait time is utilized to allow for responses from all students. • The pacing of the lesson leaves options for student interests, choice and collaborative work.	discuss ideas respectfully with their peers.

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11. Students **articulate** their **thinking and reasoning** using multiple means of expression.				
		• A few students dominate discussion and are the only ones who share their thinking and reasoning. • There is an opportunity for discussion, but the process is neither modeled nor facilitated for students. • Use of specific content vocabulary during classroom discourse is minimal or inaccurate. • There is little evidence of full student engagement in small groups (e.g.students do not record their thinking, all do not share ideas). • Students make their thinking public, but the majority of the discourse focuses on procedures rather than concepts or reasoning. • Students respond only to the teacher and not to the ideas of their peers. • Students have limited or no opportunities to openly process their teacher's and peers' thinking.	• The majority of students make their thinking and reasoning public. • Students use various means of expression (e.g., verbal, pictorial, writing, use of technology) to develop, record and represent their ideas and thinking. • Strategies allow students to formulate their thoughts in response to questions (e.g., wait time, peer sharing, quick-write). • Strategic use of techniques (such as think-pair-share and turn-and-talk) supports student engagement, and advances student thinking and reasoning related to key concepts and big ideas. • All students use academic vocabulary or representations to express their ideas and understanding. • Pre-writing, concept mapping, or brainstorming activities support thinking and reasoning. • Students use evidence and/or data to draw conclusions, synthesize, and evaluate. • Students openly process one another's thinking by actively listening, rephrasing, or agreeing/ disagreeing and providing a rationale.	• All students reflect on their own and on their peers' reasoning. • Students compare and contrast their thinking and opinions to those of others. • Students demonstrate an understanding of the big ideas by drawing inferences, making predictions, and defending hypotheses through discourse and/or work they produce.

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12. When working in **pairs or small groups**, all students are **inquiring, exploring, or problem solving collaboratively**.				
		• The lesson is characterized by extended teacher talk. • Not all students are consistently engaged in inquiry, exploration, or problem solving. • Students work in small groups or pairs, but task expectations and guidelines are not clear.	• Students are engaged in sustained interaction, often in small groups, in order to complete carefully designed academic tasks that include speaking, listening, reading, and writing or other means of expression. • Students use multiple means of expression (e.g., discussion, debate, data, demonstration, multimedia) to share their ideas and defend their positions. • Students pose questions and/or respond to material in ways that indicate their understanding of and reflection on concepts. • Students use academic vocabulary. • The teacher holds all students accountable for their contributions to group work. • The teacher provides clear guidelines, scaffolding, modeling and expectations for group work (e.g., embedded prompts, checklists, planning templates, defined student roles such as recorder or reporter). • There is a gradual release of responsibility from teacher to students for the lesson and its outcomes.	• In small groups, students monitor their own understanding and ask for assistance when needed. • Students demonstrate the ability to independently sustain interaction in order to complete academic tasks in pairs or small groups.

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13. Opportunities for students to **apply new knowledge and content** are embedded in the lesson.				
		• Students learn and practice skills and procedures. • Application of learning is not evident in lesson design or classroom artifacts and/or is not at an appropriate level of rigor. • Students complete worksheets that do not require application of conceptual understanding. • Students are unable to generalize beyond the context of the lesson or to apply new knowledge. • Tasks are not aligned with the themes or to the progression of learning in the unit.	• Application of learning is integrated into lesson design. • Application of new knowledge in problem-solving situations (not just skills/procedural knowledge) is evident in student performance and work products. • Students are given the opportunity to construct and express their understanding to the teacher or peers through multiple means. • Students generalize learning to solve unfamiliar problems or to approach unfamiliar tasks. • Student performance and work products demonstrate progress toward mastery of concepts. • There is evidence of student-initiated learning (e.g., students pose new problems to be considered and/or extend knowledge through further research, students generate conclusions).	• Students apply their learning, engage in problem solving, and make real-world connections. • Students express an understanding of what they are doing, why, and how the task relates to the lesson objective(s), themes or progression of learning in the unit. • Work products serve as evidence that students have drawn on related content from across disciplines in order to complete the task. • Students demonstrate mastery of learning through application of knowledge in performance and work products.

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14. On-the-spot formative assessments **check for understanding** to inform instruction.				
		• Teacher-student interactions focus on task completion, not on developing or checking for understanding. • Hints or prompts from the teacher relate to procedures rather than extending student thinking. • Not all students have equal opportunities to express what they know and are able to do. • The lesson progresses without a consistent or frequent means of gauging student understanding.	• Quick, on-the-spot written, recorded or visual assessments (e.g., thumbs-up/thumbs-down, exit tickets, teacher/student interactions, clicker response to interactive board quiz) are used to gauge student understanding. • Students demonstrate understanding of concepts through multiple means of expression (written, recorded, visual). • Students receive immediate and specific feedback (from the teacher or other students) during individual, small group, and/or whole group work to guide their understanding of important concepts, ideas, and vocabulary. • The teacher documents students' level of understanding and utilizes that data to modify or re-teach, as appropriate.	• There is evidence that students engage in self-reflection about their work. • When appropriate, students provide feedback to peers regarding their level of mastery in relation to standards. • The use of student conferences to check for understanding is evident through a progression of student work/artifacts.

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15. **Formative feedback** to students is **frequent, timely, and informs** revision of work.				
		• Student work products receive minimal feedback related to the standard(s). • There is little evidence to show that feedback has been timely or frequent. • Feedback is corrective and does not invite/guide revision. • Feedback affirms student effort but does not provide specifics on how to address areas that need improvement or how to make strong areas even stronger.	• The teacher uses formative assessments to gauge what each student knows/is able to do. • Students receive and understand specific, frequent and timely documented feedback (e.g., written, recorded, visual) regarding their progress toward meeting the standard(s). • Feedback encourages students to reflect on their learning. • Standards-based rubrics frame feedback to students. • Students revise work on the basis of feedback. • Students design rubrics using clear, standards-based criteria with assistance from the teacher or peers. • Feedback to students encourages perseverance and fosters efficacy and self-awareness. • Feedback to students emphasizes effort and improvement, as opposed to competition.	• Students provide constructive feedback to peers reflecting their progress toward meeting the standards. • Students independently generate standards-based rubrics. • Students independently self-assess using standards-based rubrics, and revise their work based on that self-assessment. • Students self-monitor progress toward meeting learning standards (e.g., work samples, portfolios, peer review).

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Student Ownership of Learning				
16. Students **demonstrate** how **routines, procedures, and processes** support their thinking and learning.				
		• The teacher lays out routines, but students do not make explicit connections between the routines, procedures, and processes and their learning. • Descriptions, rubrics, or exemplary work to define what constitutes a high-quality product are not evident.	• Students explain or demonstrate the routines, procedures, and processes they use, and how these enhance their learning. • Students use descriptions, rubrics, and/or exemplary work to define what constitutes a high-quality product. • Students demonstrate self-regulation (motivation, coping skills and strategies, and self-assessment).	• Students can articulate those routines, procedures, and processes that are most advantageous to them as learners.
17. Students **express or demonstrate what they are learning and why**, in relation to the standards**.**				
		• Students are able to describe the activity in which they are engaged, but they are unable to explain what they are learning from the activity, why it is important, or how they will know if they are mastering the focal standard(s).	• Students understand the critical elements of the standards being taught and the expectations for mastery. • Students are aware of what they are learning and why. • Students can articulate what standards they have mastered, and in what areas they require additional work.	• Students provide a rationale for what they are learning and why.

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Mathematics-specific Characteristic (incorporating MA Framework Standard for Mathematical Practice #3)

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11. Students **articulate** their **thinking and reasoning in mathematics**.				
		• A few students dominate the discussion and are the only ones who share their thinking and reasoning. • There is an opportunity for discussion, but the process is neither modeled nor facilitated for students. • Use of specific content vocabulary during classroom discourse is minimal or inaccurate. • Students make their thinking public, but the majority of the discourse focuses on procedures rather than concepts or mathematical reasoning. • Students respond only to the teacher and not to the ideas of their peers. • Students have limited or no opportunities to openly process their teacher's and peers' thinking.	• The majority of students make their thinking and reasoning public. • Students compare and contrast their thinking and opinions to those of others and distinguish between plausible and flawed arguments. • Students demonstrate an understanding of the big ideas by drawing inferences, making predictions, and defending hypotheses through discourse and through work they produce. • Students use various means (verbally or in writing) to develop, record, and represent their ideas and/or plausible arguments. • Students ask questions that clarify or improve their peers' arguments. • Strategic use of techniques (such as think-pair-share and turn-and-talk) supports student engagement and advances student thinking and reasoning related to key concepts and big ideas. • All students use academic vocabulary to express their ideas and understandings. • Students openly process one another's thinking by actively listening, rephrasing, or agreeing/ disagreeing and providing a rationale.	• All students reflect on their own and on their peers' reasoning. • Students identify and explain the flaws in peers' reasoning. They are able to recognize and use counterexamples. • Students build a logical progression of statements to explore the truth of their conjectures and to make connections to prior learning and activities. • Students understand and use stated assumptions, definitions, and previously established results in constructing arguments. • Students reason inductively about data, making plausible arguments that take into account the context.

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Science-specific Characteristic

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11. Students **articulate** their **thinking and reasoning in science**.				
		• Students' use of scientific language and terms is minimal or inaccurate relative to the task. • Students only identify possible weaknesses in an argument (their own or others) through a guided process. • Students have little opportunity to ask or respond to questions or participate in discussions. • When opportunities for questioning arise, the dialogue is mainly teacher-led. Student responses are simplistic, superficial, and do not challenge ideas, interpretation of data, or others' claims. • Students' ideas and possible misconceptions are shared unintentionally (if at all) and not addressed in the lesson.	• Students consistently and appropriately use scientific language and terms that are specific and relative to the task. • Students construct an argument showing how available data or evidence support their claim(s). • Students identify strengths and weaknesses in explanations (their own or those of others). • Students are prompted to ask questions to identify the premise of an argument, request further elaboration, refine a research question or engineering problem, or challenge the interpretation of a data set. • Students engage in a range of collaborative discussions (one-on-one or in groups). • Students are asked to make predictions and explain their thinking about scientific phenomena and concepts. • Students have opportunities to share their ideas and possible misconceptions that are addressed in the lesson. • Students use representations (such as drawings, graphs, or models) to convey ideas or proposed explanations.	• Students offer causal explanations appropriate to their level of scientific knowledge. • Students reflect on the flaws in their own arguments, and discuss, modify and improve them in response to criticism using reasoning and evidence. • Students independently ask each other probing questions to identify the premises of an argument, request further elaboration, refine a research question or engineering problem, or challenge the interpretation of a data set. • Students revise or refine representations in light of empirical evidence or criticism.

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