The Connecticut Common Core of Teaching (CCT) Rubric for Effective Teaching 2014

Evidence Guide Illustrative Examples of Math 9-12

Sample evidence of teacher practice developed by Connecticut educators



Connecticut State Department of Education

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Connecticut Evidence Guides

A Supplemental Resource to the CCT Rubric for Effective Teaching 2014 and the CCT Rubric for Effective Service Delivery 2014

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he Connecticut Common Core of Teaching (CCT) — Foundational Skills and Competencies (1999), revised and adopted by the State Board of Education in February 2010, establishes a vision for teaching and learning in Connecticut Public Schools. These standards identify the foundational skills and competencies that pertain to all educators, regardless of the subject matter, field or age group they teach. These competencies have long been established as the standards expected of all Connecticut educators. The CCT Rubric for Effective Teaching 2014 and the CCT Rubric for Effective Service Delivery 2014¹ are fully aligned to those standards and represent the criteria by which educators are prepared, inducted, evaluated and supported throughout their careers.

Observation of educator performance and practice plays a critical role in

Who can use the CT Evidence Guides?

- Pre-Service Teacher Preparation
- TEAM Mentors
- Teachers all content areas/grade levels
- Service Providers
- Administrators/Observers
- Instructional Coaches

How can the CT Evidence Guides be used?

- To Prepare Educators
- To Induct Educators into the Profession
- To Coach for Professional Growth and Development
- To Generate Professional Conversations
- To Inform Observation

the educator evaluation and support system. The Connecticut State Department of Education (CSDE) recognizes the importance of meaningful and authentic observations. The Guidelines for Educator Evaluation require that districts provide all evaluators with training and calibration in observation and evaluation and how to provide high-quality feedback. Additionally, evaluators must demonstrate proficiency in conducting evaluations on an ongoing basis.

Collecting objective evidence is essential in helping observers paint a fair and accurate picture of educators' strengths and areas for development. Observation criteria in the *CCT Rubric for Effective Teaching 2014*

^{1.} The *CCT Rubric for Effective Service Delivery 2014* was developed for Student and Educator Support Specialists (SESS), who, by the nature of their job description, do not have traditional classroom assignments, but serve a "caseload" of students, staff and/or families. Student and Educator Support Specialists are referred to as service providers.

focus on the skills that can be directly observed either in the classroom or through reviews of practice. Similarly, the criteria in the *CCT Rubric for Effective Service Delivery 2014* focus on the skills that can be observed in the delivery of service.

Many educators have asked where Domain 1 — Content and Essential Skills fits within the CCT Rubric for Effective Teaching 2014 and the CCT Rubric for Effective Service Delivery 2014. Educators are required to demonstrate content and pedagogical skills during their preparation programs. All teachers/service providers are expected to be skilled in common practices such as establishing respectful environments, planning for a range of learners, and engaging students in rigorous and relevant learning; however, how they actually navigate these tasks depends, in large part, on the specific content they teach or service they provide. Teaching requires an understanding of the content and of how learners typically engage with the content. Effective teachers know their content well and can skillfully merge their knowledge about the practice of teaching with their content expertise. Likewise, effective service providers know how to seamlessly integrate their professional knowledge with their ability to deliver their services. The CCT rubrics are designed to evaluate how well a teacher/service provider can use his or her pedagogical/professional knowledge to teach his or her content or deliver services.

To provide more guidance as to what the rubric continuums *might* look like in practice for both of the CCT rubrics, the CSDE in collaboration with the RESC Alliance and the Connecticut Association of Schools (CAS), convened multiple workgroups, comprised of teachers, service providers and building leaders throughout the summer of 2014. These workgroups developed grade-level and content-specific samples of observable student and teacher/service provider behaviors that *might* be seen or heard during an observation. These *CT Evidence Guides* are presented as a resource to give observers a sense of the content area/grade level being observed. Although they are trained to be effective observers, administrators may have to observe an educator in a content area, grade level, or setting that

Please note, Connecticut Evidence Guides:

- ARE NOT to be used as a checklist of "look fors."
- DO NOT serve as a rubric for evaluation.
- ARE NOT an exhaustive list of teacher practices.

is outside of their own expertise. These guides are intended to provide a snapshot of sample evidence aligned to the four performance levels for each indicator within the **first three domains** of both of the CCT rubrics.

The *CT Evidence Guides* **ARE NOT** intended to represent comprehensive evidence, nor are they intended to be used as a checklist or as a rubric. Rather, the *CT Evidence Guides* have been created as a resource for teachers, service providers, mentors and administrators. The CSDE encourages districts to use the *CT Evidence Guides* as a tool for professional development and growth as well as guiding observations. These guides offer opportunities for valuable professional learning as educators work with one another to generate their own examples of evidence aligned to the respective rubric.

As the educator evaluation and support system evolves over time, so will the evidence provided in these guides. As such, the CSDE will be continually eliciting feedback from the field on the CT Evidence Guides to ensure that they are effective, relevant and useful. To provide feedback on any aspect of the CT Evidence Guides please use the following link: Feedback on the CT Evidence Guides.

If you have questions on the *CCT Rubric for Effective Teaching 2014*, please contact Claudine Primack, CSDE Education Consultant, at <u>claudine.primack@ct.gov</u>. For questions on the *CT Evidence Guides for the CT Rubric for Effective Service Delivery 2014*, please contact Kim Wachtelhausen, CSDE Education Consultant, at <u>kim.wachtelhausen@ct.gov</u>.

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Rapport and positive social interactions	Interactions between teacher and students are negative or disrespectful and/or the teacher does not promote positive social interactions among students.	Interactions between teacher and students are generally positive and respectful and/or the teacher inconsistently makes attempts to promote positive social interactions among students.	Interactions between teacher and students are consistently positive and respectful and the teacher regularly promotes positive social interactions among students.	There is no disrespectful behavior between students and/or when necessary, students appropriately correct one another.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Student says in front of the whole class, "Ugh, why did you choose him to solve the problem? He is not good in math and does not know how to do these problems." Teacher does not respond to disrespectful language between students.	Student says to another student, "You don't know how to do this problem because you don't understand it." Teacher responds, "We don't talk that way in the classroom." Later, when another student says to a classmate, "Stop, you are doing it wrong. You are really bad at it," teacher does not respond.	Student says, "If you don't know how to solve the problem, I will help you." Teacher says, "Thank you, Marta, for helping Amanda. It is important that we all help one another to solve the problem."	Students independently help each other to problem-solve.
	Teacher remains at desk and gestures for students to move away from her desk when they attempt to ask a question.	Teacher gestures for a student to come to her desk when he raises his hand with a question. When another student comes to the teacher's desk, she gives him an angry look and he quickly returns to his seat.	Teacher walks around as students work at their desks. When one student raises his hand, the teacher smiles and gestures that she will be right over.	Students work collaboratively in small groups listening to each other and helping each other to complete a task
	Teacher calls on the same three students.	When the same three students raise their hands, the teacher says, "How about someone else who we haven't heard from yet?" Then she calls on one of the three whose hands were raised.	When the same three students raise their hands, the teacher says, "How about someone else who we haven't heard from yet?" Then she instructs students, "Let's turn and talk with our partners to share thoughts before I call on someone to answer this question."	When the teacher asks a question, most of the students' hands are raised, and students respond to one another's ideas using positive language. One student responds, "That's a good idea." Another student says, "I didn't think about that; I did it a different way."

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ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Rapport and positive social interactions	Interactions between teacher and students are negative or disrespectful and/or the teacher does not promote positive social interactions among students.	Interactions between teacher and students are generally positive and respectful and/or the teacher inconsistently makes attempts to promote positive social interactions among students.	Interactions between teacher and students are consistently positive and respectful and the teacher regularly promotes positive social interactions among students.	There is no disrespectful behavior between students and/or when necessary, students appropriately correct one another.
	Teacher does not connect the problem of the week to student interest.	The teacher tells students that the interest surveys they completed will give him some idea about what their interests are. He then distributes the same problem to the whole class.	Teacher tells the students that he used information from their interest surveys to select the problem of the week.	As students in one group discuss the problem of the week, they share their personal interests and recognized connections to the problem of the week.

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ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Respect for student diversity	Does not establish a learning environment that is respectful of students' cultural, social and/or developmental differences and/or the teacher does not address disrespectful behavior.	Establishes a learning environment that is inconsistently respectful of students' cultural, social and/or developmental differences.	Maintains a learning environment that is consistently respectful of all students' cultural, social and/or developmental differences.	Acknowledges and incorporates students' cultural, social and developmental diversity to enrich learning opportunities.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Problems are not differentiated and are not culturally relevant.	Problems are somewhat differentiated and culturally relevant.	Individual problems for cooperative groups are differentiated and culturally relevant.	Students are able to independently develop differentiated and culturally relevant problems for their group.
	Teacher does not encourage multiple approaches to problem-solving.	Teacher occasionally encourages multiple approaches to problemsolving.	Teacher consistently encourages multiple approaches to problemsolving. Teacher asks students, "Did anyone solve this problem in a different way?"	Students independently access multiple problem-solving strategies.
	Teacher says, "Everyone will be doing an oral presentation on relating tables, graphs and equations."	Students complete an interest survey about types of presentations. Teacher then says to most of the students, "You will be doing an oral presentation on relating tables, graphs and equations." A select group of students was allowed to present their information in a different way.	Students complete an interest survey about types of presentations. Teacher conferences with the students to help them determine which form of the presentation will be best for them.	Students complete an interest survey about types of presentations. Teacher then says, "Work with your group and share your interest survey. Then, as a group discuss which form of the presentation will be best for you and begin to prepare your presentation."

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Environment supportive of intellectual risk-taking	Creates a learning environment that discourages students from taking intellectual risks.	Creates a learning environment in which some students are willing to take intellectual risks.	Creates a learning environment in which most students are willing to take intellectual risks.	Students are willing to take intellectual risks and are encouraged to respectfully question or challenge ideas presented by the teacher or other students.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	When a student gets a problem wrong, the students laugh and say, "That's lame!" The teacher does not respond.	When a student gets a problem wrong, the students laugh and the teacher says, "It's OK, we all make mistakes sometimes," and teacher moves on with the lesson.	When a student gets a problem wrong, another student says, "I got that problem wrong too." The teacher responds, "Let's take a minute and share what you did so we can where your mistake was made."	When a student gets a problem wrong, another student says, "I got that problem wrong too. Let's work through this together."
	The teacher asks, "How do you solve this problem?" Students do not respond. Teacher says, "I'm going to wait here until someone gives me the right answer!"	The teacher asks, "How do you solve this problem?" The same four students who have answered all the other questions raise their hands.	The teacher asks, "How do you solve this problem?" Fourteen of the 18 students in the class raise their hands to participate. After the teacher calls on a student to share their solution, the teacher asks, "Did anyone solve this problem differently?" Eight students raise hands to share a different approach.	After classmate solves a problem, student says, "I solved the problem a different way, and got the same solution." The student shares alternate approach.

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
High expectations for student learning	Establishes low expectations for student learning.	Establishes expectations for learning for some, but not all students; OR is inconsistent in communicating high expectations for student learning.	Establishes and consistently reinforces high expectations for learning for all students.	Creates opportunities for students to set high goals and take responsibility for their own learning.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "Only a few of you are ready for this problem. I will call you up to give you the problem individually."	Teacher says, "Only some of you are going to be able to do this problem. But I want you to try it if you get to it."	Teacher says, "You can figure this out. This is like the last time you got stuck. What did you do then?" Teacher says, "What do you think your first step would be?"	Student says, "I'm stuck." Another student responds, "I remember a problem like that last class" and pulls out notebook to review.
	Teacher says, "Today you are going to do these problems using one strategy."	Teacher says, "These problem- solving strategies may help a few of you."	Teacher says, "Not everyone solved this problem the same way. However, you were all able to apply problemsolving strategies and come up with an appropriate solution."	Student says, "I used that problem- solving strategy in my science class. It really helped me to visualize the problem."
	Teacher says, "Some of you haven't gotten this yet. Hopefully you will by the unit assessment."	Teacher says, "Some of you haven't gotten this yet. If you are one of those students, remember we have a quiz coming and you may want to see me for extra help."	Teacher provides students with a list of learning targets that will be covered on an upcoming quiz. Students are given time to evaluate where they think they are in meeting each learning target and to develop a plan to be prepared for the quiz.	Without prompting, students identify what they need to progress toward meeting the learning targets on an upcoming quiz.

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

Indicator 1b: Promoting developmentally appropriate standards of behavior that support a productive learning environment for all students.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Communicating, reinforcing and maintaining appropriate standards of behavior	Demonstrates little or no evidence that standards of behavior have been established; and/or minimally enforces expectations (e.g., rules and consequences) resulting in interference with student learning.	Establishes standards of behavior but inconsistently enforces expectations resulting in some interference with student learning.	Establishes high standards of behavior, which are consistently reinforced resulting in little or no interference with student learning.	Student behavior is completely appropriate OR Teacher seamlessly responds to misbehavior without any loss of instructional time.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Students are having side conversations during a class discussion and the teacher does not address them.	Students begin to have side conversations during a class discussion. Teacher points to the classroom behaviors listed in the classroom to remind students of the noise level, but the noise level persists.	Students participate in the class discussion. The teacher refers to the listening expectations listed on the wall when a student begins talking out of turn, and the student responds with expected behavior.	As a student talks out of turn during a class discussion, a classmate says to him, "Remember, we need to be a good listener." Her classmate quiets down.
	Students are shouting out responses while the teacher is explaining the rational number system. The teacher does not correct the behavior, and students continue shouting out.	Students are shouting out responses while the teacher is explaining the rational number system. Teacher says, "We need to remember to raise our hands to ask questions about the rational number system." When students begin to shout out responses again, the behavior is not addressed.	Students are shouting out responses while the teacher is explaining the rational number system. Teacher says, "We need to remember to raise our hands to ask questions about the rational number system." When students begin to shout out responses again, the teacher uses a raised hand to remind students not to call out the answer. Students stop shouting out responses and wait to be called on.	Students are shouting out responses while the teacher is explaining the rational number system. A student puts her hand up to remind her classmates not to shout out. The class sees the cue and begins to raise their hand to ask questions about the rational number system.

Teachers promote **student engagement, independence** and **interdependence** in learning and facilitate a positive learning community by:

Indicator 1b: Promoting developmentally appropriate standards of behavior that support a productive learning environment for all students.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Communicating, reinforcing and maintaining appropriate standards of behavior	Demonstrates little or no evidence that standards of behavior have been established; and/or minimally enforces expectations (e.g., rules and consequences) resulting in interference with student learning.	Establishes standards of behavior but inconsistently enforces expectations resulting in some interference with student learning.	Establishes high standards of behavior, which are consistently reinforced resulting in little or no interference with student learning.	Student behavior is completely appropriate OR Teacher seamlessly responds to misbehavior without any loss of instructional time.
	During a problem-solving group activity, the classroom volume gets loud. Four out of five groups are loudly discussing their sports activities from the weekend. Teacher walks around the room but does not address them in any way.	During a problem-solving group activity, teacher says, "I noticed some groups are getting too loud. Please try to quiet down." After five minutes, the classroom returns to the original volume, but the teacher does not address it.	During a problem-solving group activity, teacher says, "I noticed some groups are getting too loud. Let's take a minute to review our group work expectations." Teacher says, "Who can explain the appropriate volume for group work?" Three students volunteer. The teacher asks, "Tara, could you explain how we are to speak in groups and, Jose, could you show us what that looks like?" Students return to group work. After two minutes of appropriate group discussion, teacher says, "As I was working with group 2, I noticed how much more easily I could hear our conversation because all the groups are talking much quieter."	During a problem-solving group activity, one student says to another student, "We need to talk quietly because I think we are bothering the other group."

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

Indicator 1b: Promoting developmentally appropriate standards of behavior that support a productive learning environment for all students.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Promoting social competence and responsible behavior	Provides little to no instruction and/or opportunities for students to develop social skills and responsible behavior.	Inconsistently teaches, models, and/or reinforces social skills; does not routinely provide students with opportunities to self-regulate and take responsibility for their actions.	When necessary, explicitly teaches, models, and/or positively reinforces social skills; routinely builds students' capacity to self-regulate and take responsibility for their actions	Students take an active role in maintaining high standards of behaviors OR Students are encouraged to independently use proactive strategies and social skills and take responsibility for their actions.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	During a heated discussion, one student says to another, "You're stupid. That's wrong!" Teacher does not respond. There are no classroom norms posted on the wall.	During a heated discussion, one student says to another, "You're stupid. That's wrong!" Teacher says, "Don't say something is stupid when someone says something you don't like. You should know better than that."	During a heated discussion, one student says to another, "You're stupid. That's wrong!" Teacher says, "Don't say something is stupid when someone says something you don't like. Can you think of a better way to share that you disagree with what was said?" The student responds with several better phrases. Norms are posted on the wall for reference.	During a heated discussion, one student says to another, "You're stupid. That's wrong!" Another student says, "Don't say something is stupid when someone says something you don't like. Instead just say, 'I disagree with that because' like we see on the norms poster"
	Several students come in late from a music lesson. They do not organize quickly for the lesson. Teacher says, "All of you will stay in for lunch detention because you guys weren't ready. We'll have a working lunch to make up that time."	Several students come in late from a music lesson. They take out their folders to begin working, but the teacher does not recognize the appropriate behavior in any way.	Several students come in late from a music lesson. The students take out their folders to begin working, and the teacher says, "Even though you came in late, I see that you got yourself organized quickly to be ready to work."	Several students come in late from a music lesson. A student says to another student, "Don't forget to take out your folder for this lesson." The student says, "Thank you for reminding me."

Teachers promote **student engagement**, **independence** and **interdependence** in learning and facilitate a positive learning community by:

Indicator 1c: Maximizing instructional time by effectively managing routines and transitions.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Routines and transitions appropriate to needs of students	Does not establish or ineffectively establishes routines and transitions, resulting in significant loss of instructional time.	Inconsistently establishes routines and transitions, resulting in some loss of instructional time.	Establishes routines and transitions resulting in maximized instructional time.	Teacher encourages and/or provides opportunities for students to independently facilitate routines and transitions.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Students move from whole class to groups in four minutes, and teacher takes another six minutes to distribute materials. Lesson is not completed.	Students move from whole class to groups in two minutes. Teacher has student group leaders distribute materials while the students are still moving into groups. Some of the groups take longer to get started.	Teacher rings a bill to signal students to move to groups. It takes 45 seconds for groups to organize and each group member has a preestablished role. Students retrieve materials, which are laid out on a table, in 45 seconds, and everyone is working after 90 seconds.	At 10:15, students move into groups without teacher prompting. Students remind one another of their roles and retrieve materials from a central location. Students are working by 10:16.
	Students arrive to class and need to wait for instructions from teacher.	Students arrive to class, and teacher says, "It's time for the warmup." Some students work on the warmup and some students do not.	Students arrive to class. Teacher says, "Start the warmup." Students get right to work.	Students enter room and without prompting, the students work independently on the warm up.
	Teacher receives a phone call regarding an emergency early dismissal. Teacher does not share information with students. Students start talking to one another about the snowstorm. Teacher says, "Get back to work until I dismiss class."	Teacher receives a phone call regarding an emergency early dismissal. Students start talking to one another about the snowstorm. Teacher says, "We are going to dismiss to the next class in five minutes instead of the normal time."	Teacher receives a phone call regarding an emergency early dismissal. Students start talking to one another about the snowstorm. Teacher says, "We are going to dismiss to the next class in five minutes because we are getting out early. Please make this classwork your homework assignment and we will regroup tomorrow."	Teacher receives a phone call regarding an emergency early dismissal. Students start talking to one another about the snowstorm. Teacher says, "We are going to dismiss to the next class in five minutes because we are getting out early." Student then says, "Should we make this classwork our homework?"

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

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	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Content of lesson plan is aligned with standards	Plans content that is misaligned with or does not address the Common Core State Standards and/or other appropriate Connecticut content standards	Plans content that partially addresses Common Core State Standards and/or other appropriate Connecticut content standards.	Plans content that directly addresses Common Core State Standards and/or other appropriate Connecticut content standards.	Plans for anticipation of misconceptions, ambiguities or challenges and considers multiple ways of how to address these in advance.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher lists all the math standards from G-CO in the plan, but the content of the lesson only addresses G-CO.7. (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)	Some of the math standards listed in the plan support the content of the lesson, such as G-CO.7 but standard G-CO.8 is listed and not addressed in the lesson content. (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)	Teacher has identified the specific math standards that will be addressed in the content of the lesson. All lesson activities are designed to build student learning of the standards. (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)	Teacher has carefully selected the math standards for the lesson content based on student needs; all lesson activities and planned assessments are aligned to the specific standards. (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)
	Lesson objective: Students will be able to factor quadratic expressions to reveal the zeros of the function it defines. Teacher plans to have students complete a worksheet of practice problems.	Lesson objective: Students will be able to factor quadratic expressions to reveal the zeros of the function it defines. Teacher plans to give students already factored equations and have them find the zeros.	Lesson objective: Students will be able to factor quadratic expressions to reveal the zeros of the function it defines. Teacher plans to use algebra tiles to model. Teacher then plans for students to independently practice with a variety of real world problems that are modeled with quadratic equations.	Lesson objective: Students will be able to factor quadratic expressions to reveal the zeros of the function it defines. Teacher plans to use algebra tiles to model this. Teacher then plans to give students a problem about a cruise missile modeled with a quadratic expression and have the students determine how long it will take for the missile to hit targets at various distances away from the launch site. The teacher plans to have the students first graph the quadratic equation, then find the zeros and then discuss how the two relate with a partner.

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	provides for appropriate level of chancings for all students.			
	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Content of lesson appropriate to sequence of lessons and appropriate level of challenge	Does not appropriately sequence content of the lesson plan.	Partially aligns content of the lesson plan within the sequence of lessons; and inconsistently supports an appropriate level of challenge.	Aligns content of the lesson plan within the sequence of lessons; and supports an appropriate level of challenge.	Plans to challenges students to extend their learning to make interdisciplinary connections.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	The teacher plans to develop an understanding of operations with complex numbers. Possible evidence of the sequence within lessons for example; lesson is focused on multiplication of complex numbers.	The teacher plans to develop an understanding of operations with complex numbers. Possible evidence of the sequence within lessons for example; this lesson comes after subtraction of integers.	The teacher plans to address the critical area of developing understanding of operations with complex numbers. Possible evidence of the sequence within lessons for example; a weeklong mini-unit is planned on addition, subtraction and multiplication of complex numbers.	Teacher plans to have students brainstorm where any operation of complex numbers apply to fractals.
	The teacher plans to teach graphing a parabola with no connection to finding the zeros.	The teacher plans to teach graphing a parabola. The teacher plans to show the factored form of the quadratic function and its matching graph. She then plans to tell the students that the zeros are the <i>x</i> -intercepts of the graph.	The teacher plans to teach graphing a parabola. The teacher has already taught how to find the zeros of the function. The teacher plans to build on this knowledge by providing the factored form of several quadratic equations and possible matching graphs. She then plans to have the students work in groups to match the graphs with the equations and then explain how the two are connected.	The teacher plans to review knowledge of quadratic functions to explore the application of projectile motion and have the students make a conjecture about the zeros of the function and the critical points on the graph.

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Content of lesson appropriate to sequence of lessons and appropriate level of challenge	Does not appropriately sequence content of the lesson plan.	Partially aligns content of the lesson plan within the sequence of lessons; and inconsistently supports an appropriate level of challenge.	Aligns content of the lesson plan within the sequence of lessons; and supports an appropriate level of challenge.	Plans to challenges students to extend their learning to make interdisciplinary connections.
	Teacher plans to demonstrate procedure of multiplying binomials using FOIL.	Teacher plans the sequence of activities to enable students to build their conceptual understanding of multiplying binomials. The teacher plans to begin the lesson by modeling with area diagrams and then move the students to groups to practice more problems.	Teacher plans the sequence of activities to enable students to build their conceptual understanding of multiplying binomials. The teacher plans to begin the lesson by modeling with area diagrams and then move the students to groups to practice more problems and plans to conclude the class by having students write, in their own words, the "rules" of multiplying binomials based on the model.	Teacher plans the sequence of activities to enable students to build their conceptual understanding of multiplying binomials. The teacher plans to begin the lesson by modeling with area diagrams. Following this, the teacher plans to have students visit stations around the room. Each station has a real-world example that applies multiplying binomials.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Use of data to determine students' prior knowledge and differentiation based on students' learning needs	Uses general curriculum goals to plan common instruction and learning tasks without consideration of data, students' prior knowledge or different learning needs.	Uses appropriate, whole class data to plan instruction with limited attention to prior knowledge and/or skills of individual students.	Uses multiple sources of appropriate data to determine individual students' prior knowledge and skills to plan targeted, purposeful instruction that advances the learning of students.	Plans for students to identify their own learning needs based on their own individual data.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Lesson is planned based on the textbook and pacing guide.	Lesson is planned based solely on previous year's assessment test data.	Lesson is planned based on prior assessment data, current formative assessments and observation of student needs.	Teacher plans for students to use their success criteria to reflect on their progress and determine next steps.
	Teacher plans to cover section 2.3 in the textbook on multiplication with binomials.	Teacher plans to make all students complete a practice worksheet on multiplying binomials.	Teacher plans to have one group use algebra tiles while they complete practice on multiplying binomials, while the other group will be working without manipulatives to move from the concrete to the abstract.	Teacher plans to explain a variety of ways to demonstrate binomial multiplication (i.e., algebra tiles, area models, virtual manipulatives, distribution) and students are allowed to use which method works best for them as they work to move from a concrete understanding to an abstract one.

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	provides for appropriate level of chantenge for an students.			
	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Literacy strategies	Plans instruction that includes few opportunities for students to develop literacy skills or academic vocabulary.	Plans instruction that includes some opportunities for students to develop literacy skills or academic vocabulary in isolation.	Plans instruction that integrates literacy strategies and academic vocabulary.	Designs opportunities to allow students to independently select literacy strategies that support their learning for the task.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher's plan has all students reading the problem individually and then plans to have them solve the problem.	Teacher's plan has all students highlighting key words as she reads the problem aloud with the students and then plans to have them solve the problem.	Teacher's plan begins with having students highlight key words as they read a problem individually. The teacher then plans to have students do a pair-share to discuss what they highlighted and if there are any additional key items to highlight. The teacher then plans for students to use a graphic organizer to organize the key ideas before being asked to solve the problem.	Teacher's plan has students assigned to groups to read a problem and then discuss with the group ways that the information of the problem can be organized to create a plan to solve the problem. Following the discussion, the teacher plans to have the students select one method and solve the problem.
	Teacher does not plan to provide key vocabulary words or definitions.	Teacher plans to provide definitions of math vocabulary used within the lesson.	Teacher plans to give students new math vocabulary words for the lesson. At the end of the lesson, the teacher plans to have the students enter the meanings of the new words in their own language into their journal.	Teacher plans to give students new math vocabulary words for the lesson. The teacher plans to have them post a thread on an online learning platform that uses the vocabulary correctly.
	Teacher plans allow for no opportunity for students to communicate their reasoning.	Teacher plans to have students communicate their mathematical reasoning for solving a problem. She plans to ask students to justify their answer through writing.	Teacher plans to have students communicate their mathematical reasoning for solving a problem. She plans to ask students to justify their answer through writing, a visual representation of the problem and then plans to have them share out.	Teacher plans to have each student communicate their mathematical reasoning for solving a problem. The teacher plans to allow the students to choose the method of communication. (i.e., graphs, through writing, verbally).

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

Indicator 2b: Planning instruction to cognitively engage students in the content.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Strategies, tasks and questions cognitively engage students	Plans instructional tasks that limit opportunities for students' cognitive engagement.	Plans primarily teacher directed instructional strategies, tasks and questions that provide some opportunities for students' cognitive engagement.	Plans instructional strategies, tasks and questions that promote student cognitive engagement through problem-solving, critical or creative thinking, discourse or inquiry-based learning and /or application to other situations.	Plans to release responsibility to the students to apply and/or extend learning beyond the learning expectation.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher plans to provide a specific scenario or problem and then give the students the exponential function that describes it.	Teacher plans to provide a specific scenario or problem that can be expressed by an exponential function. The teacher explains to the students how the situation relates to an exponential function, and together the teacher and student write the equation for the function.	Teacher plans to provide a specific scenario or problem that can be expressed by an exponential function. The teacher plans a collaborative task for students to develop the exponential function to describe that situation and explain why the function models the situation.	Teacher plans for students to apply their knowledge about exponential functions to generate a variety of real-world examples that are described by exponential functions. The teacher plans for the students to write the scenario and then model it with the exponential equation.
	Teacher provides practice problems of the Pythagorean Identity with no discussion of proof.	Teacher provides a proof of the Pythagorean Identity.	Teacher plans for students to research a proof of the Pythagorean Identity by using technology and then to explain the proof in their own words.	Teacher enables students to discover multiple proofs of the Pythagorean Identity and present their findings to the class.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

Indicator 2b: Planning instruction to cognitively engage students in the content.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY	
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:	
Instructional resources and flexible groupings support cognitive engagement and new learning.	Selects or designs resources and/or groupings that do not cognitively engage students or support new learning.	Selects or designs resources and/or groupings that minimally engage students cognitively and minimally support new learning.	Selects or designs resources and/or flexible groupings that cognitively engage students in real world, global and/or career connections that support new learning.	Selects or designs resources for interdisciplinary connections that cognitively engage students and extend new learning.	
This sample evidence is not		SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher plans whole-class instruction only.	Teacher plans for students to select their own groups.	Planned groups are based on student learning needs, skill level, interest surveys, etc.	Planned groups are based on similar student success criteria.	
	Teacher plans to teach box and whisker plots by reading the textbook.	Teacher plans to teach box and whisker plots by providing notes on the process for constructing them.	Teacher plans to teach box and whisker plots by breaking the students into groups. The teacher plans to give each group several different sets of numbers and the resulting box and whisker plots. The teacher plans for the students to analyze the numbers based on measures of central tendency and then make a conjecture about the relationships between measures of central tendency and whisker plot.	Teacher plans to teach box and whisker plots by breaking the students into groups. The teacher plans to give each group a different set of data from a real-world context and the resulting box and whisker plots. The teacher plans for the students to analyze the data based on measures of central tendency and then make a conjecture about the relationships between measures of central tendency and the box and whisker plot. The teacher plans for the students to then jigsaw to see if their conjecture works for the other data sets.	

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

Indicator 2c: Selecting appropriate assessment strategies to monitor student progress.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY	
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:	
Criteria for student success	Does not plan criteria for student success; and/or does not plan opportunities for students to self-assess.	Plans general criteria for student success; and/or plans some opportunities for students to selfassess.	Plans specific criteria for student success; and plans opportunities for students to self-assess using the criteria.	Plans to include students in developing criteria for monitoring their own success.	
This sample evidence is not	SAMPLE EVIDENCE				
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher's plan does not include a checklist or a rubric.	Teacher's plan includes a checklist of necessary steps and procedures.	Teacher's plan includes a rubric that defines criteria for student success.	Teacher plans to include student input on the development of the rubric.	
	Teacher does not plan to distribute the rubric to the class.	Teacher plans to hand the rubric out to the class with no discussion about its contents.	Teacher plans to share and explain the rubric with the class.	Teacher's plan allows for students to discuss the rubric and make necessary changes to rubric.	
	Teacher plans to remind students to hand in their work when done.	Teacher's plan provides time for students to evaluate their work but not using the rubric.	Teacher's plan enables students to use rubric to complete self-assessment before turning in the assignment.	Teacher's plan allows time for peer review and, based on that review, an opportunity for students to make adjustments before turning in the assignment.	

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

Indicator 2c: Selecting appropriate assessment strategies to monitor student progress.

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY	
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:	
Ongoing assessment of student learning	Plans assessment strategies that are limited or not aligned to intended instructional outcomes.	Plans assessment strategies that are partially aligned to intended instructional outcomes OR strategies that elicit only minimal evidence of student learning.	Plans assessment strategies to elicit specific evidence of student learning of intended instructional outcomes at critical points throughout the lesson.	Plans strategies to engage students in using assessment criteria to self-monitor and reflect upon their own progress.	
This sample evidence is not	SAMPLE EVIDENCE				
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher plans to give a quiz at the end of the mini-unit.	Within the lesson plan, teacher plans learning target of determining the value of the sine and cosine of an angle when an isosceles right triangle is found on the unit circle. Teacher plans to gauge student learning with thumbs up/thumbs down.	Within the lesson plan, teacher plans learning target of determining the value of the sine and cosine of an angle when an isosceles right triangle is found on the unit circle. The teacher plans to use formative assessments such as exit slips, white boards, and Q and A to gauge student learning. The teacher plans several learning activities that could be used if students do not meet the learning target.	Within the lesson plan, teacher plans learning target of determining the value of the sine and cosine of an angle when an isosceles right triangle is found on the unit circle. The teacher plans to use formative assessments such as exit slips, white boards, and Q and A to gauge student learning. The plan includes opportunity for students to reflect on their learning evidenced by the formative assessments and relate where they are in their learning to the rubric. Based on the reflection, the teacher plans to have students choose from three possible activities to meet the learning target.	

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY	
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:	
Instructional purpose	Does not clearly communicate learning expectations to students.	Communicates learning expectations to students and sets a general purpose for instruction, which may require further clarification.	Clearly communicates learning expectation to student and sets a specific purpose or instruction and helps student to see how the learning is aligned with Common Core State Standards and/or other appropriate Connecticut content standards.	Students are encouraged to explain how the learning is situated within the broader learning context/curriculum.	
This sample evidence is not	SAMPLE EVIDENCE				
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "By the end of the day you will be able to make a graph."	Teacher says, "By the end of the day, you will be able to model quadratic relationships"	Teacher says, "Yesterday, we looked at quadratic functions that have a positive and negative x-intercept. Today, we are going to discover realworld situations that can be modeled by these functions." (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)	Teacher says, "We have graphed quadratic functions that have a positive and negative <i>x</i> -intercept. Do you think all quadratics will have these types of intercepts? Please take a minute and respond to this in your journals." Students are directed to write a response to this question in their journals. (Standards evidence aligns with the CCS and/or other CT standards and/or district approved content standards.)	

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Content accuracy	Makes multiple content errors.	Makes minor content errors.	Makes no content errors.	Invites students to explain the content to their classmates.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher incompletely defines the intercepts: "The intercepts are the zeros."	Teacher says, "When writing the equation for this parabola, what is the c." The teacher does not clarify what the variable represents.	Teacher says, "When writing a quadratic equation in standard form from a graph, can someone tell me one important piece of information." A student responds, "The c." The teacher says, "What does that represent?" A student responds, "The y-intercept." The teacher says, "Correct, it is where the graph crosses the y-axis."	Teacher says, "When writing a quadratic equation in standard form from a graph, there are several important pieces of information needed. Please turn to your partner and discuss what this information is, why it is important and how it is represented in the equation."

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Content progression and level of challenge	Presents instructional content that lacks a logical progression; and/or level of challenge is at an inappropriate level to advance student learning.	Presents instructional content in a generally logical profession and/or at a somewhat appropriate level of challenge to advance student learning.	Clearly presents instructional content in a logical and purposeful progression and at an appropriate level of challenge to advance learning of all students.	Challenges students to extend their learning beyond the lesson expectations and make cross-curricular connections.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "The example for graphing quadratic functions is on page 72. Review that example and complete problems 1-10."	Teacher says, "Yesterday we talked about graphing a quadratic function. Today, we are going to be graphing three different parabolas with different leading coefficients and comparing them. After that, we will review as a class how the different coefficients affect the graph of a parabola."	Teacher says, "Complete the Do Now related to the graphs of quadratic equations and their equations." Teacher says, "Please pass up your Do Now work." The teacher quickly sorts through the work then breaks the students into groups based on the students' needs. The teacher says to group 1, "Practice on matching graphs of parabolas to their equations based on the lead coefficient. If you struggle, you can use a graphing calculator to confirm your answers." The teacher says to group 2, "I have given you problems with two parabolas and matching equations. Their graph is missing the third equation. I want you to sketch where that third equation would be located on the graph." The final group is instructed to take the given two parabolas and matching equations and explain how to determine where to locate the remaining equations on the graph.	To expand their understanding of quadratic functions, students are provided graphs that model lunch prices and student purchases for three different schools. Students decide what price should be set for lunch, how many students will be participating based on the population of the school, and total revenue for the program. Students will justify their decision based on evidence from the problem.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Literacy strategies	Presents instruction with few opportunities for students to develop literacy skills or academic vocabulary.	Presents instruction with some opportunities for students to develop literacy skills and/or academic vocabulary.	Presents instruction that consistently integrates multiple literacy strategies and explicit instruction in academic vocabulary.	Provides opportunities for students to independently select literacy strategies that support their learning.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Student says, "I don't know what this word means." Teacher says, "If there are words that you do not understand, the glossary is in the back of the book."	Teacher handed out a graphic organizer for vocabulary. Teacher then says, "Under vocabulary, write 'geometric sequence' and in the definition box write, 'Geometric sequence is a sequence of numbers that maintains a constant ratio between the consecutive terms."	The teacher hands out a graphic organizer to create a definition of geometric sequence. The teacher says, "In box one, write the definition of a geometric sequence in your own words. In the second box, show some examples to demonstrate a geometric sequence, and in the final box show some non-examples. When you finish we will share out." As the students share out, a student says, "A geometric sequence has a constant ratio." The teacher responds, "Yes it does. Can someone add to that?" Another student says, "That constant ratio has to be between consecutive terms. We call that the common ratio." Teacher says, "Very good, now in the last box, revisit your original definition and based on the share out write a new one that is more complete."	Students are provided with a variety of examples of geometric sequences. Teacher says to the students, "You are to work in pairs to analyze the examples and create your own definition of geometric sequence."

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	evidence-based learning strategies.				
	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY	
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:	
Strategies, tasks and questions	Includes tasks that do not lead students to construct new and meaningful learning and that focus primarily on low cognitive demand or recall of information.	Includes a combination of tasks and questions in an attempt to lead students to construct new learning, but are of low cognitive demand and/or recall of information with some opportunities for problem-solving, critical thinking and/or purposeful discourse or inquiry.	Employs differentiated strategies, tasks and questions that cognitively engage students in constructing new and meaningful learning through appropriately integrated recall, problem solving, critical and creative thinking, purposeful discourse and/or inquiry. At times, students take the lead and develop their own questions and problem solving strategies.	Includes opportunities for students to work collaboratively to generate their own questions and problem-solving strategies, synthesize and communicate information.	
This sample evidence is not	SAMPLE EVIDENCE				
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Task: Students fill in the answers on a worksheet. The teacher asks questions similar to the following: "What is the answer?" "What is the process?" "What is the formula for slope?	Task: Students are asked to solve a page of word problems The teacher asks questions similar to the following: "Where did you make your mistake?" "What formula will you need?" "Read the problem. What is the slope? The <i>y</i> -intercept?"	Task: Students are given a real-world problem to solve. The teacher asks a variety of questions similar to the following: "How could use something you already know to help you solve the problem?" "Is there a way to break the question down into simpler components to find a pathway to the solution?" "Are you able to generate more than one way to approach this problem?"	Students are given a real world problem to solve with a group. Students from one group generate these questions about a problem they are to solve: "What are strategies that I could use to solve this problem?" "How is this problem similar to other things that I have done in the past?" "What have I learned in the past that might help me approach this problem?"	

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Strategies, tasks and questions	Includes tasks that do not lead students to construct new and meaningful learning and that focus primarily on low cognitive demand or recall of information.	Includes a combination of tasks and questions in an attempt to lead students to construct new learning, but are of low cognitive demand and/or recall of information with some opportunities for problem-solving, critical thinking and/or purposeful discourse or inquiry.	Employs differentiated strategies, tasks and questions that cognitively engage students in constructing new and meaningful learning through appropriately integrated recall, problem solving, critical and creative thinking, purposeful discourse and/or inquiry. At times, students take the lead and develop their own questions and problem solving strategies.	Includes opportunities for students to work collaboratively to generate their own questions and problem-solving strategies, synthesize and communicate information.
	Teacher lectures how to find the points of intersection, but does not allow for guided or independent practice.	Teacher states, "We are going to find the point of intersection of two equations." Teacher then models how to solve the system by graphing, while the students take notes. Teacher modeling is followed by student practice.	Teacher states, "We are going to find the point of intersection of two linear equations." Tools are available for student use, including graph paper, graphing calculators, scratch paper, straightedge, and mini graphing white boards. The teacher approaches a group and asks, "Are you having trouble figuring out what tool to use? I think it might be helpful if you start with the mini-graphing white board because it is already scaled out for you."	Teacher states, "We are going to find the point of intersection of two linear equations." After the students find the point of intersection of two linear equations, a student in one group says, "We found it by graphing by hand. I wonder if we can confirm that answer." Another student says, "Let's use the graphing calculator to see if we are right." In another group, a student says, "I wonder if we didn't always have linear equations if we could still compute the point of intersection." Students in group begin investigating by entering equations into the graphing calculator.

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	evidence-based learning strategies.			
	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Instructional resources and flexible groupings	Uses resources and/or groupings that do not cognitively engage students or support new learning.	Uses resources and/or groupings that minimally engage students cognitively and support new learning.	Uses resources and flexible groupings that cognitively engage students in demonstrating new learning in multiple ways, including application of new learning to make interdisciplinary, real world, career or global connections.	Promotes student ownership, self-direction and choice of resources and/or flexible groupings to develop their learning.
This sample evidence is not	SAMPLE EVIDENCE			
This sample evidence is not comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	The teacher shows a PowerPoint on how to use the law of sines, while students take notes. Students are given a worksheet to complete independently.	The teacher reviews the sine, cosine and tangent ratios. The students, with teacher assistance, derive the law of sines. The teacher has triangle ABC on the board. Teacher says, "Draw a perpendicular from B and label it h. Using A, how can you find h? Using C, how can you find h?" Teacher continues to guide the discovery of the law of sines. Students complete a series of problems on the law of sines in groups.	Teacher arranges students in heterogeneous groups and provides each group with an investigation related to trigonometric ratios. Teacher asks students, "How did you find h?" One group responds, "We used angle A and applied the sin. So h = cSinA." Teacher says, "Did anyone do it differently?" A students says, "We used angle C and found h = aSinC." Teacher responds, "Both ways work. Use that to see if you can determine another relationship." Students continue to work and develop the law of sines. After completing the investigation, the students practice a variety of problems on the law of sines.	Teacher arranges students in heterogeneous groups and provides each group with an investigation related to trigonometric ratios. Teacher asks students, "How did you find h?" One group responds, "We used angle A and applied the sin. So h =cSinA." Teacher says, "Did anyone do it differently?" A students says, "We used angle C and found h = aSinC." Teacher responds, "Both ways work. Use that to see if you can determine another relationship." Students continue to work and develop the law of sines. After completing the investigation, students create their own real-world trigonometric ratio application problems for their peers.

Teachers plan instruction to **engage students in rigorous and relevant learning** and to **promote their curiosity about the world at large** by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Student responsibility and independence	Implements instruction that is primarily teacher-directed, providing little or no opportunities for students to develop independence as learners.	Implements instruction that is mostly teacher directed, but provides some opportunities for students to develop independence as learners and share responsibility for the learning process.	Implements instruction that provides multiple opportunities for students to develop independence as learners and share responsibility for the learning process.	Implements instruction that supports and challenges students to identify various ways to approach learning tasks that will be effective for them as individuals and will result in quality work.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "Last class there were questions about function characteristics. We have already gone over this. If you have any more questions, please come see me after school."	Teacher says, "Last class there were questions about the characteristics of different functions. We are going to take a few minutes to review what we already know about them. What do you know about quadratic functions?" A student responds, "The graph is always a parabola."	Teacher says, "Last class, each group became experts on the characteristics of a different function. Now we will mix up your groups." In jigsaw groups, students present characteristics of each other's' functions. A student explains, "Our group had linear functions. They always have a constant rate of change." Another student adds, "We did quadratics. Their graph is always a parabola."	Teacher says, "Last class, each group became experts on the characteristics of a different function. Now we will mix up your groups." In jigsaw groups, students present characteristics of each other's' functions. A student explains, "Our group had linear functions. They always have a constant rate of change." Another student adds, "We did quadratics. Their graph is always a parabola." Once they have shared out a student says, "Let's compare and contrast the functions' characteristics." Another student says, "The <i>y</i> -intercept for the linear and quadratic functions is always the constant from the equation."

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Criteria for student success	Does not communicate criteria for success and/or opportunities for students to self-assess are rare	Communicates general criteria for success and provides limited opportunities for students to selfassess.	Communicates specific criteria for success and provides multiple opportunities for students to self-assess.	Integrates student input in generating specific criteria for assignments.
This sample evidence is not		SAMPLE I	EVIDENCE	
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher assigns students problems for students to present on transformations of graphs but does not give them any criteria for success.	Teacher states, "Remember as you are preparing your presentations, make sure to show all your work and clearly explain your thinking."	Teacher states, "As we work to prepare our oral presentations on transformations of graphs, we need to revisit our schoolwide rubric for public speaking. We need to make sure our presentations are well planned, our solutions are supported with evidence, and are mathematically accurate. Let's look at the rubric and make sure we understand the expectations."	Students suggest including additional criteria for assessing their presentations. A student adds, "In addition to our three rubric areas, we should include our use of technology, like with a graphing calculator to enhance our presentations."
	Teacher says, "When you have finished your work, put it in the bin on my desk." Teacher checks student work to see if they met the learning target.	At the end of class, the teacher says to the students, "Review the learning target and assess how you are progressing in meeting that target."	Once the students have had some time to work on the lesson, the teacher says, "Remember to look at the rubric to assess how you are doing in meeting today's learning target." Again later in lesson, the teacher says, "As I listen to some of your conversations I think you are on the right track. Don't forget the rubric will help you to see how you are doing." At the end of the class the teacher says, "Class is almost over; take a few minutes to assess where you are at in meeting the learning target."	Students take out their success criteria and self-assess their progress toward meeting the learning target. One student says to his group, "We need to make sure we keep these success criteria out so we can refer back to it throughout the class."

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Ongoing assessment of student learning	Assesses student learning with focus limited to task completion and/or compliance rather than student achievement of lesson purpose/objective.	Assesses student learning with focus on whole-class progress toward achievement of the intended instructional outcomes.	Assesses student learning with focus on eliciting evidence of learning at critical points in the lesson in order to monitor individual and group progress toward achievement of the intended instructional outcomes.	Promotes students' independent monitoring and self-assess, helping themselves or their peers to improve their learning.
This sample evidence is not	SAMPLE EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "Put your finished worksheet on your desk so I can come around and check it off. You don't have to pass these in to me. I just want to know that you finished it."	Teacher says, "Put your finished worksheet on your desk. Did everybody understand when a function has limit?" Students nod their heads, and the teacher says, "Good, we all got it!"	Teacher checks in with each group. Teacher says to one group, "How can you tell that this function has a limit?" A student from the group responds, "When we looked at the graph, it appeared to approach the same value from the left and from the right." The teacher says, "Is there another way that you can show this?" A different student says, "We also looked at the table and that was confirmed."	Students check each other's understanding of a limit. Student says to partner, "How do you know this function has a limit?" Partner replies, "It approaches the same value, coming from both the left and the right."

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:
Feedback to students	Provides no meaningful feedback or feedback lacks specificity and/or is inaccurate.	Provides feedback that partially guides students toward the intended instructional outcomes.	Provides individualized, descriptive feedback that is accurate, actionable and helps students advance their learning.	Encourages peer feedback that is specific and focuses on advancing student learning.
This sample evidence is not		SAMPLE I	EVIDENCE	
to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	Teacher says, "So far you have a C. If you add more, you could get a grade up."	Teacher says, "You have done a good job. Please add a step to your proof that defines perpendicular bisector."	Teacher says, "You have marked your diagram with the given information. Next, you need to give an argument as to why can make statements that go beyond the given information in order to prove these two triangles congruent. Remember as you do that to think about perpendicular bisectors that we discussed yesterday."	Teacher notes, "Before we present our arguments, each of you will participate in a peer review. As you go into your groups, here are some examples of questions you can ask your partner." (Teacher points to posted questions on the board.) Questions on the board: Is it clear what you are setting out to prove? Do you show all your work? Can you justify each step of your reasoning? Does your diagram match your explanation? Is there any information in my solution that is unnecessary? Or should I add something?
	Student says, "I think I am finished." Teacher says, "I think you should take more time."	Student says, "I added one step, but I don't know what else to do."	Student says, "I have started to create my proof. I see why I need the definition of perpendicular bisector like you suggested. Once I added that, the rest came easy for me."	Student says to another student, "You said that I needed to adjust my diagram because it was confusing. I redid it. Can you look it over and see if it is clearer?"

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	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY		
ATTRIBUTES				In addition to the characteristics of Proficient , including one or more of the following:		
Instructional adjustments	Makes no attempts to adjust instruction.	Makes some attempts to adjust instruction that is primarily in response to whole-group performance.	Adjusts instruction as necessary in response to individual and group performance	Students identify ways to adjust instruction that will be effective for them as individuals and results in quality work.		
This sample evidence is not		SAMPLE I	EVIDENCE			
comprehensive nor is it intended to be used as a checklist during an observation. It is intended to illustrate what evidence for this attribute might look like at the various performance levels.	A student group asks for help. "We are not sure how to get started on this problem." Teacher tells group, "Do not worry about it just now, go to the next problem."	Teacher says, "I noticed that many of you struggled with the last problem. We are all going to take a few minutes to look at this topic from a different perspective."	In the middle of a lesson, teacher notes that some students are struggling with practice problems, while others have completed the work. Teacher says, "There seems to be varying degrees of understanding. I am going to break you up into groups so that you can focus on the areas that you need more work with." Once the students are in groups, she says to group 1, "I am going to review this from a different perspective. That may help you understand it better." To the second group she says, "I want you to choose three problems from the page once you have found the solution one way, see if you can do it another way and get the same answer."	Student says, "I'm not ready to practice this on my own yet. Can you explain this to me in another way?" Other students ask to participate in extra instruction. Teacher provides requested learning opportunities by pairing students with learning partners.		