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

Evidence Guide Illustrative Examples of Science 3-5

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.	Students are sitting in a circle observing and identifying rocks and minerals. Caitlin says to another group member, "Give me the rock." Teacher does not respond. The other student throws the rock toward her. The teacher does not respond.	Students are sitting in a circle observing and identifying rocks and minerals. Caitlin says to another group member, "Give me the rocks." The teacher says, "Caitlin, how should you ask your group mate for the rock?" Caitlin takes a deep breath, lets out a loud sigh and says, "PA-LEASE" loudly. Teacher does not respond to the sarcasm.	Students are sitting in a circle observing and identifying rocks and minerals. One student says to another, "Will you please pass me the rock?" The other student smiles and passes the rock over. The first student says, "Thank you." The teacher leans in and says, "Wow, your language to each other shows how much you respect each other. Keep it up!"	Students are sitting in a circle observing and identifying rocks and minerals. One student says to another, "Will you please pass Paul the rock because he hasn't seen that one?" The other student smiles and passes the rock over to Paul.
	Teacher sits at desk while students independently work on drawing conclusions based on a data set. A student moves toward the teacher's desk. Teacher remains at desk and shakes her head no. Student then moves away from her desk.	Teacher sits at her desk while students independently work on drawing conclusions based on a data set. A student raises her hand and the teacher motions for her to come over. Later, another student comes to the teacher's desk and she shakes her head no. The student returns to his desk.	Teacher moves from group to group around the room as students work on drawing conclusions based on a data set. When one student raises his hand, the teacher smiles and gestures that she will be right over.	Students work collaboratively to draw conclusions about their data set. One student says, "We should organize our data in a bar graph to help us draw our conclusions." Another student responds by smiling and nodding her head in agreement.

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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 calls on the same three students during a discussion on the food chain.	During a whole-class food chain discussion, the same three students raise their hands to answer the question. The teacher says, "How about someone else we haven't heard from yet?" A few more students raise their hands. The teacher calls on one of the new volunteering students and then calls on a student who was initially raising his hand.	During a whole class food chain discussion, the same three students raise their hands to answer the question. The teacher says, "I see many of the same hands up. Let's try turning and talking to the person next to you about the sequence of the food chain." After the partners talk the teacher says, "How about someone else we haven't heard from yet?" The teacher calls on someone who has not yet participated in the discussion.	Teacher asks, "Who can explain the food chain?" All the students' hands are raised. Student is called on and shares the sequence. One student raises their hand and responds by saying, "I forgot about that part. Do you have a strategy to remember it?"
	Teacher chooses and assigns one topic to be researched by the whole class.	The teacher assigns students research topics based on completed interest survey. There were three different research topics assigned to the whole class.	The teacher is conferencing with students about the topic of their research project. Using the interest survey students previously completed, the teacher and student brainstorm a list of three possible project topics from which the student will choose.	Teacher pairs students based on their interest surveys. Students meet with partner to discuss, question, and brainstorm a list of three possible topics from which each student will choose. The student pairs agree on their topics.

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	BELOW STANDARD	DEVELOPING	PROFICIENT	EXEMPLARY
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.	Students are all studying the same Caucasian male scientists using the same informational text.	Students choose from North American and European scientists for their biography. The reading level of the texts is all the same.	Resources for a scientist biography reflect various cultures. Materials are available in a range of reading levels that support and exceed the limits of the grade level. Adaptive technology, if necessary, is used for the biography project.	Students bring in resources that relate to their culture to support their own and other students' biography projects.
	During a discussion about ecosystems, a student says, "My family likes to visit the ocean." The teacher says, "We are not discussing personal experiences right now!" and begins to read a book about ecosystems.	During a discussion about ecosystems, a student says, "My family likes to visit the ocean." The teacher says, "That is great." Other students have their hands raised. The teacher gestures for them to put their hands down and begins reading a book about ecosystems.	During a discussion about ecosystems, a student says, "My favorite ecosystem is the ocean. My family and I spend a lot of time on the ocean." The teacher says, "Thank you for sharing. We all have had some kind of experience observing an ecosystem, at a park, in our yards, in the woods, and many other places. During our discussions, please include anything that is appropriate from an ecosystem you have observed. Does anyone else have an ecosystem you have observed?"	During a discussion about ecosystems, a student says, "My favorite ecosystem is the ocean. My family and I spend a lot of time on the ocean." The teacher says, "Thank you for sharing. Does anyone else have an ecosystem you have observed? What have you observed that would add to our knowledge about ecosystems?"
	Teacher assigns the same electricity experiment to each student in the class.	Students are assigned to electricity experiment groups by the teacher. One student says, "I feel that I am more interested in another topic." The teacher responds, "You are staying in the topic you were assigned."	Students fill out a survey to rate which of the six electricity experiments they are interested in exploring. The teacher groups the students based on the surveys.	Student groups develop a question about electricity they want to explore. Students use a guided inquiry map to help them decide how to proceed.

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 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.	In a small group, students are planning and carrying out an investigation on how light reflects. A student says, "Let's use the concave mirror." Another student responds, "You're stupid! We have to try all the mirrors." The teacher does not respond.	In a small group, students are planning and carrying out an investigation on how light reflects. A student says, "Let's use the concave mirrors." The teacher responds, "That's a great idea. Are there other mirrors we can try too?"	In a small group, students are planning and carrying out an investigation on how light reflects. A student says, "Let's use the concave mirror." Another student responds, "We have to try all the mirrors, not just one." The teacher agrees with the student, stating, "You should try all the mirrors."	In a small group, the teacher provides opportunities for students to plan and carry out an investigation on how light reflects. A student says, "Let's use the concave mirror." Another student responds, "We can try other mirrors too." The teacher circulates from group to group, addressing questions and concerns.
	Teacher asks, "Can anyone describe how sound is transmitted?" Students do not respond. Teacher says, "I am going to wait here until someone gives me the right answer!"	Teacher asks, "Can anyone describe how sound is transmitted?" The same four students who have answered all of the other questions raise their hands.	Teacher asks, "Can anyone describe how sound is transmitted?" Fourteen of the 18 students in the class raise their hands to participate.	One student explains how sound is transmitted. Another student says, "I am still confused. Can anyone help describe how sound is transmitted?" Another student responds, "I can help. Where are you stuck?" Another student explains it also in simpler terms.

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.	While working on a design for a model demonstrating the Earth's rotation, the teacher says, "Only a few of you are ready to work independently on this task. I will call the rest of you up to explain the task individually before you begin."	While working on a design for a model demonstrating the Earth's rotation, the teacher says, "We're going to break into two groups. Some of you will need a lot of help to complete this work and some of you are ready to work on your own."	While working on a design for a model demonstrating the Earth's rotation, the teacher says, "You can figure this out. This is like the last time you got stuck." Teacher says, "We'll work on it together. Where do you think you can get information that will help start building your model?"	While working on a design for a model demonstrating the Earth's rotation, one student says, "Does anyone know how to start building the model?" Another student responds, "I am going to look back at the last design we did to see if I can remember the steps. Last time I was stuck, that strategy really helped."
	Teacher says, "Do this scientific method worksheet."	Teacher says, "The scientific method will help a few of you who will want to become scientists."	Teacher says, "The scientific method will help us all become more effective and thorough scientists. You are all going to write some amazing experiments."	Student says, "I have been writing some science experiments at home using the scientific method in order to become a better scientist. I can see in my class work that it is making a difference."
	Students working on a project have no rubric. When teacher hands back a graded project she says, "Hopefully, you will do better next time."	Students use a rubric provided by the teacher that includes bullet points of expectations. There are no specific examples on the rubric to help students reflect on their own practice.	The teacher says, "Use the rubric and sample student work to monitor your progress and you will meet your goals."	Students adjust personal goals based on analysis of their performance data. A student says, "This would be great evidence for my portfolio!"

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 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 just finishing a simple machine experiment. Teacher says, "We need to move from this activity to writing your conclusion." The students begin talking and the experiment materials are knocked to the floor. It takes seven minutes for all students to be working on the independent work.	Students are just finishing a simple machine activity. Teacher rings a bell and says, "Please clean up and begin working independently on your experiment conclusion. You should think about all of your experiment trials and synthesize the information to write a thorough conclusion." Students begin talking and the experiment materials are being thrown into bins. Students are still talking to each other and the teacher says, "There is no talking during a transition. Please get right to work." Students continue to talk and it takes six minutes for all students to be working on the independent work.	Students are just finishing a simple machines activity. Teacher rings a bell and says, "I would like to have Jack and Hannah model our transition to writing the conclusion for our experiment by synthesizing all the information we have gathered today." The students clean up the experiment materials by respectfully placing them in their correct bins. Then they take out their science notebooks and begin the conclusion. The two students are silent while cleaning up their materials and putting them in the correct bins. Teacher says, "Thank you, let's see if we can all transition as quickly and quietly as Hannah and Jack did!" All students follow the example of the model students, quietly clean up, get out their science notebooks, and begin writing in them in four minutes.	Teacher says, "We will need to transition from our simple machine activity into synthesizing all of our gathered information from today's experiment and writing a conclusion in our science notebooks. One, two, three" Students quietly clean up by putting materials respectfully into the correct bins and begin work in their science notebooks in three minutes.

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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.
	Students are independently writing down an electricity experiment and half the class is either looking around the room or doodling on their papers. The teacher does not address them in any way.	All students are working independently on writing an electricity experiment in their science journals. A student begins looking out the window, and the teacher stands close to the student. When the student continues to look out the window, the teacher stands there for an additional minute and then walks away.	All students are on task and working independently on writing an electricity experiment in their science notebooks. A student begins looking out the window. The teacher stands in close proximity. However, the student continues to look out the window. The teacher points at the student's paper and whispers in his ear. The student returns to his work.	All students are on task and working independently on writing an electricity experiment in their science notebooks. Billy begins looking out the window, and his classmate Lucy puts her finger on the paper and he begins to work again.
	During group work for an experiment exploring light, the classroom volume gets loud because 4 out of 5 groups are loudly discussing their sports activities from the weekend. Teacher walks around the room and says, "Shh!" Students continue to talk. Teacher makes no more comments about behavior.	During group work for an experiment exploring light, teacher says, "I notice 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 group work for an experiment exploring light, teacher says, "I notice some groups are getting too loud. Please come to the carpet and I will review our group work expectation." Teacher then chooses three students to help model appropriate volume for group work. Then teacher speaks with the model group in a voice that is just louder than a whisper. Next, the teacher has students practice expected behavior by turning and talking with the person next to them prior to returning to their groups. After two minutes of appropriate group volume, teacher says, "As I was working with group two, I noticed how much more easily I could hear our conversation because all the groups are talking much quieter."	During group work for an experiment exploring light, 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 ⁵ and social skills and take responsibility for their actions.
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.	After a student incorrectly identifies the parts of the water cycle during a group discussion, another student says, "You're stupid. That's wrong!" Teacher does not respond.	After a student incorrectly identifies the parts of the water cycle during a group discussion, another student yells out, "That's wrong." Teacher asks student to raise his hand next time, but then lets him explain the right way to answer the problem.	After Felicia identifies the parts of the water cycle during a whole group discussion, the teacher responds by asking, "Can anyone else agree or disagree with this answer?" Tristan raises his hand and responds, "I disagree with Felicia's answer because" Another student says, "I agree with Felicia because" Teachers says, "Let's have a discussion about the different answers and see if we can agree on one answer."	Students meet in small groups to sketch a diagram of the water cycle. When students disagree on how they should draw the diagram, each student takes a turn explaining how they would set it up. One student asks, "Why don't we vote on the diagram to use?"
	Student groups are putting the experiment materials away haphazardly on the shelves. The teacher does not address them in any way.	Teacher says to one table, "Please be sure to organize the experiment materials back on the correct shelves." Later another group of students is not putting materials where they belong, and the teacher does not go over to the table.	Teacher says, "I like the way table three put the eyedroppers and graduated cylinders neatly away on the correct shelves."	Student says to another student, "I see the eyedroppers near you. Can you gather up all the eyedroppers and put them in the basket?" A student collects eyedroppers. Student says, "Thank you."

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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.	Service provider encourages and/or provides opportunities for students to demonstrate and/or 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 group in four minutes and teacher takes another six to distribute materials. Lesson is not completed.	Students move from whole class to group in two minutes. Teacher has student group leaders distribute materials while the students are still moving into groups. Groups are working after six minutes.	Teacher says, "Remember the jobs you have for the groups." Teacher rings a bell to signal students to move to groups. It takes one minute for groups to organize. Teacher says, "Students, retrieve materials for your group." Materials are gathered and everyone is working after two minutes.	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 within two minutes.
	Teacher says, "It is time for lunch." Some students wander without a clear purpose. Teacher says louder, "It is time for lunch."	Teacher says, "It is time for lunch." Some students clean up, gather lunch and recess materials, and line up. Some students talk and do not take action. One student asks, "What do we need to do?"	Teacher says, "It is time for lunch." Students clean up quietly and independently. They push in their chairs, retrieve recess and lunch materials, and line up in a straight quiet line.	Teacher concludes the science lesson. Students independently put away science materials, retrieve recess and lunch materials, and line up without teacher prompting.
	Teacher receives a phone call regarding a change to the assembly schedule. Teacher does not share information with students. Students start talking to one another about the assembly and why they haven't yet left the classroom. Teacher says, "We're not going to the assembly now. Get out a book to read, and I'll find you something else to do."	Teacher receives phone call regarding change to the assembly schedule. Teacher says, "The assembly has been postponed today. Here's what we're doing next. Let's get back to work."	Teacher receives phone call regarding change to the assembly schedule and tells students. Teacher announces, "Our assembly has been moved, and we will attend later this afternoon. As a result, we are going to begin our science lesson earlier. Let's review our revised schedule. Are there any questions?" Students move into the next activity.	Teacher receives phone call regarding change to the assembly schedule and tells students. Student says, "We would have been doing science during the assembly time, Can we try to fit it in before the assembly?" As the students continue working, the teacher updates the daily schedule.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and
provides for appropriate level of challenge for all students.

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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 does not list any science standards in the lesson plan.	Some of the science standards listed in the plan support the content of the lesson, but other standards that are listed are not addressed in the lesson content. (CT Science Framework – 3.1.a.4)	Teacher has identified the specific science standards that will be addressed in the content of the lesson. All lesson activities are designed to build student learning of the standard. CT Science Framework – 3.1.a.4 CT Science Framework -3.1.a – Grade Level Expectation 3 CT Science Framework – BINQ 1 + BINQ 3	Teacher has identified and selected specific science standards based on student needs. All lesson activities and planned assessments are aligned to the specific standards. CT Science Framework – 3.1.a.4 CT Science Framework – 3.1.a – Grade Level Expectation 3 CT Science Framework – BINQ 1 + BINQ 3 NGSS – Practice Standard 3. Students, in groups determined by their prior knowledge of experimentation, will be designing an experiment to test their predictions about floating and sinking. Although students may be unable to develop well-controlled experimental protocol, they will work to develop a consistent sequence of steps by which they test each item and record their data.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and
provides for appropriate level of challenge 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 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.
	Lesson objective is to classify items into two categories: ability to sink or float. Teacher plans to have students draw a picture of items that sink and items that float.	Lesson objective is to carry out simple tests to determine if materials sink or float in water. Teacher will model the structure of the experiment using various items. He or she will explain the scientific process by creating a hypothesis, testing it, and recording data. He or she will then conduct the experiment in the front of the class. Before testing each item, students will generate a prediction for each item. Once teacher tests the item, students will record the data. At the close of the lesson, teacher will lead discussion about results and classify objects into two categories: objects that float and objects that sink.	Lesson objective is to carry out simple tests to determine if materials sink or float in water. Teacher will model the structure of the experiment using a cork as the example. He or she will model the planning and carrying out an investigation by developing a question, conducting an investigation, and recording data for the cork. In predetermined groups, students will conduct their own investigation using the same objects. Students will generate a hypothesis for each object, test it, and record the data to classify the objects as items that sink or float. At the end of the lesson, students will compare results to discuss similarities and differences in the materials that sink or float.	Students will gather, analyze, and evaluate information in order to draw conclusions about the reasons for items to sink or float. (NGSS.1, NGSS.8)

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

Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and provides for appropriate level of challenge for all students.

	provides for appropriate level of challenge 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 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.	By end of lesson sequence, students will understand that they can hear with their ears.	Students will demonstrate an understanding that the part of the ear has different functions. (CT Science Framework – 5.2.4) The next lesson will focus on how the ear aids in our survival.	Previously lessons focused on individual senses. By end of lesson sequence, students will demonstrate an understanding that perceiving and responding to information about the environment is critical to the survival of organisms. (CT Science Framework – 5.2.a)	By end of lesson sequence, students will demonstrate an understanding that perceiving and responding to information about the environment is critical to the survival of organisms. Students will also investigate what would happen if a part or parts of the ear structure was changed. (CT Science Framework – 5.2, NGSS Science and Engineering Practice)	
	In this lesson, students will be given a diagram of the ear to label. Upon completion of the worksheet, students will watch a PowerPoint presentation on each part of the ear. The presentation will be used to check their work. (NGSS.5)	In this lesson, teacher plans for students to work in small groups to generate a list of everything that they know about the ear and its function. Students will share with the class, and teacher will compile the list on the SMART Board. Then working independently, students will take notes about the inner and outer ear, citing the function of the different parts of the ear. Students will use available classroom resources (textbook, iPads, Kids Discovery magazines, etc.) to complete this task. (CT Science Framework – 5.2.a.4.5)	In this lesson, teacher plans for students to work in small groups to generate a list of everything that they know about the ear and its function. Students will share with the class, and teacher will compile the list on the SMART Board. Then working in pairs, students will diagram the inner and outer ear, citing the function of the different parts of the ear. Students will use available classroom resources (textbook, iPads, Kids Discovery magazines, etc.) to complete this task. (CT Science Framework – 5.2.a.4.5)	Students will write a personal narrative from the perspective of the ear. Using the information gathered during research, students will articulate in this new voice to explain the path that sound travels through the ear to the brain. (CCSS.W.5.3)	

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and
provides for appropriate level of challenge 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.
	Students will complete a journal entry on their favorite sound.	Students will be given a worksheet with a diagram of an ear. They will work independently to label each part.	After completing research to diagram the human inner and outer ear, students will apply their understanding by choosing two animals to compare and contrast related to ear structure and function. Using this information, they will formulate and write a summary of what they have learned, including which animal can hear better and justifying the choice with evidence. Teacher will provide resources varying in text complexity.	Students will build an ear model to scale, which will show all parts of the inner and outer ear. To extend knowledge further, students will have the option to change or manipulate a part of the ear (their choice) to demonstrate how that adaptation would affect the function of the ear. (CT Science Framework – 5.2.a.4.5, CCSS.MATH.CONTENT.5.NF.B.5)

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and provides for appropriate level of challenge for all students.

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	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 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 follows textbook and pacing guide to plan lesson.	Lesson is planned solely based on previous year's assessment 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 will cover pages 20-25 in the science book and all students will complete a word search.	Teacher plans to provide all (or no) students with a copy of notes.	Teacher plans to provide some students with a copy of notes to be used as a guide during discussion and investigation. Other students will be provided the organizer the teacher used for the notes with only the headings, and other students will receive the same graphic organizer that is blank. If needed, some students will be given extended time for the completion of activities.	Teacher plans to provide optional notes at the close of the lesson. Students can choose to check their work against teacher's copy if they wish. Teacher will also provide varying text resources ranging in text complexity for students to read independently if they choose.

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and
provides for appropriate level of challenge for all 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 plans to have students watch the Reader's Theater play, <i>Water Cycle Adventure</i> on YouTube.	Teacher plans to have students read the Reader's Theater play, Water Cycle Adventure, independently at their seats. Teacher will talk about the water cycle after all students have finished reading. (CT Science Framework – 4.3.a)	Teacher plans for students to read and perform the Reader's Theater play, Water Cycle Adventure (www.enchantedlearning.com). (CT Science Framework – 4.3.a)	Teacher plans to have students work in cooperative groups to plan, write, and perform their own play illustrating the water cycle. (CT Science Framework – 4.3.a, CCSS.SL.4.4)
	After watching the YouTube video, Water Cycle Adventure, teacher plans to have students write a review of the video and will check the reviews to see if students use any science vocabulary.	After reading the play, "Water Cycle Adventure," students will discuss the water cycle in small groups. Teacher plans to monitor group discussions for the use of academic and domain specific words.	Teacher plans for students to read and perform the Reader's Theater play, Water Cycle Adventure (www.enchantedlearning.com). Teacher plans to have students write a summary of the play, using domain-specific words to demonstrate their understanding of the water cycle. CCSS.SL.4.4)	Teacher plans to have students include multimedia components (ex. graphics, sound, and visual displays) in presentations to enhance the development of the water cycle concept. (CCSS.SL.4.5)

Teachers plan instruction to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:
Indicator 2a: Planning of instructional content that is aligned with standards, builds on students' prior knowledge and
provides for appropriate level of challenge for all 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.
	Teacher plans to read the water cycle section of the textbook to the class as a whole group. The teacher plans to call for volunteers to read sections of the textbook.	Teacher will provide students with multiple texts regarding the water cycle (i.e., Kids Discovery magazine, Time for Kids, science textbook, etc.). If students complete a water cycle reading comprehension worksheet in the allotted time, they can choose to read the additional resources independently.	Teacher plans to provide students with multiple texts regarding the water cycle (i.e., Kids Discovery, Time for Kids, science textbook, etc.). Students will be divided into groups, each group reading a different text. Student groups will read and take notes, then share findings with the class. Teacher will compile all notes together on the SMART Board as groups present to the class. Students will then independently synthesize information from these multiple sources to describe the water cycle. (CT Science Framework – 4.3.a)	After synthesizing information from multiple sources, students will make a generalization on the role that water plays in shaping the earth's surface. (CT Science Framework – 4.3)

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 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.	The teacher plans to read aloud to the class facts about the desert. The students will complete a true/false worksheet.	After reading a scientific article about the desert as a class, teacher will ask explicit questions with answers found in the text (e.g., name one animal that lives in the desert). (CT Science Framework – 3.2.a)	Using a scientific article about the desert, teacher plans questions for analysis to lead students to a deeper understanding of what organisms need to survive in this environment. The questions are scaffolded and sequenced. Teacher plans for students to identify physical and behavioral adaptations that allow organisms to survive in the desert. (CT Science Framework – 3.2.a)	Teacher plans to provide resources for multiple habitats ranging in text complexity. Students will pick a habitat to explore, and discuss physical and behavioral adaptations of various organisms within that environment. (CT Science Framework – 3.2.a, E.1, E.2, E.3. S.8)
	After teacher reads aloud to the class a narrative story about a Texas horned lizard's journey through the desert, students will draw their favorite part of the story and write a paragraph explaining why.	After reading an article about desert animals, students will work as a whole group to create a class Venn diagram comparing two of the animals.	Using a variety of resources (textbook, iPads, TeacherTube videos, articles, etc.), teacher plans to have students compare and contrast two organisms that live in the desert, citing physical and behavioral adaptations.	After learning about the desert habitat, and researching an additional chosen habitat independently, students will select two closely related organisms to investigate further (e.g., desert wolf, arctic wolf). Students will then synthesize the information collected to compare these organisms. The comparison will be presented using media of student choice (e.g., PowerPoint, Glogster, diorama, video, etc.). (E.2, E.3, E.5, E.6)

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.	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 content area strengths/interests, student learning needs, skill level, interest surveys, etc.	
	Teacher selects a text that is at second-grade reading level for a fifth-grade class.	Teacher selects a poem and a nonfiction article about the solar system.	Teacher selects multiple resources to introduce a new concept: current events, informational texts, works of art, websites, multimedia, digital tool, etc. Teacher's plan includes a text with a range of complexity.	Teacher plans for students to make their own interdisciplinary connections by providing time for independent self-directed reading.	

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 self-assess.	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 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 states that students will talk about their shadow experiments.	Teacher plans specific questions related to the lesson. Teacher plans to share the general reading comprehension question rubric with the students as success criteria.	Teacher plans specific questions related to the lesson and determines a range of acceptable responses and likely unacceptable responses (i.e., teacher plans to ask, "Based on the evidence collected from your shadow experiment, why does a tree's shadow change its size and location throughout the day?"). Teacher knows that there will be multiple ways to explain, and students will need to support their explanation with evidence from their experiment. The teacher plans to share samples of explanations that include appropriate evidence for students to understand the expectations of their science writing.	Teacher plans to ask students to what key criteria would be in a rubric for informational writing. The students will generate the criteria. Teacher will work with students to use the criteria to write a rubric for their science explanatory writing.
	Teacher will distribute a worksheet for students to complete. The criterion for success is task completion.	Teacher will explain directions to the class.	(CT Science Framework – 5.3) Teacher will provide a rubric for scoring. Students will use the rubric as a checklist for completion.	Once students have completed their exemplar responses, Teacher's plan calls for students to generate criteria that identify acceptable and ideal responses. Teacher plans to challenge students to determine the number of details from the experiment needed and to define an effective explanation.

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 self-assess.	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.
	Teacher reminds students to hand in their work when finished.	Teacher will provide written directions for the students.	Teacher will provide students with a self-evaluation rubric, which will be completed for their own work.	Teacher plans time for students to use feedback from peers in order to self-assess their responses based on the agreed upon student-generated criteria

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.	End-of-unit test will be given after unit is complete.	Teacher plans to use recall questions, use of thumbs-up/thumbs-down to gauge student understanding.	Teacher plans to use SMART Board, online polling tools, questioning, observation, homework, journals, exit slips, personal whiteboards, and other total participation techniques.	After students complete their self- evaluation rubric on their responses to open-ended questions, they will record their reflections in their journals and share with 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:	
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 begins lesson with, "Open your science books to chapter 13 on Friction and get started."	Teacher says, "Today we are going to learn about friction. By the end of today, you will know how friction affects the motion of objects."	Teacher says, "Yesterday we looked at how air resistance affects the movement of an object. Today we are going to look at how the interaction between surface materials affects the motion of an object."	Teacher says, "In your science groups, discuss this question: What makes objects move the way they do? Think about what we learned about speed last week and about opposing forces yesterday." Students respond with a variety of answers including, "The more an object weighs, the more force is needed to move it" and "Smaller objects are easier to stop."	

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 says, "During an experiment, we remove all variables so that we know our results are pure."	Teacher says, "During an experiment, you can only change one variable at a time."	Teacher says, "Scientists ask questions about what would happen if a variable is changed. A variable that a scientist changes is an independent variable. An independent variable is one condition that you can change in an experiment."	Teacher says, "Turn to your science partner and discuss which variable in the experiment you would like to change. Don't forget to share your hypothesis based on the variable you changed."

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 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, "Yesterday we talked about precipitation. Today you will read about what evaporation is. Get started please."	Teacher says, "Yesterday we introduced the concept of precipitation. Together we found that some precipitation falls on land and gravity causes it to flow downhill to streams. Today, we move from precipitation to evaporation. After your groups have read the text, you will then take a short quiz."	Students complete a "Do Now" that assesses their level of understanding of the water cycle. Based on results, teacher assigns students to one of three groups. Groups are given differentiated tasks with increasing levels of complexity to study how the sun's energy affects the water cycle. The teacher facilitates each group, giving special attention to the one group that requires more support. At the end of the science session, students reflect on questions: "What do I clearly understand? What is still confusing?"	Students are in science groups. They are given a choice of simple tests to explore the capabilities of the human senses. As a group, students select the tests and gather appropriate materials. Then they ask questions, investigate and predict reasonable outcomes for the tests they chose. They then prepare to share their results and conclusions with the whole 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:
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 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, "This is too hard. I can't figure out what this word means." During the science lab, students are stumbling over the science vocabulary in the lab guide and are not successful. Teacher says, "I want you to just look at the pictures and begin the experiment. We will talk about it later."	Teacher instructs students to look at the words on the chart. Teacher says, "These are some new vocabulary words that you will be learning about throughout the science experiment today. Let's define them so that you do not get stuck. Refraction is the bending of light as it passes from one substance to another."	Teacher says, "Let's first look at this word 'refraction' and images next to it, and let's see if we can figure its meaning out." After the teacher reviews the images in the book, they use a magnifying glass to investigate refraction. Students respond, "change," "bend," and "deflect."	Student attempts to help another student with the word refraction. The student begins using the magnifying glass to show how looking through it enlarges objects to the human eye. The student says, "See how the eraser looks much bigger when you use the magnifying glass? That's because the lens is bending the light." The other student responds, "This is starting to make sense. Let's see what happens when I turn the magnifying glass around."

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.	Teacher asks questions similar to the following: "How does a polar bear stay warm?" Student responds, "Fur." Teacher asks again, "Can plants grow toward the sun?" Student says, "Yes." Task: Students fill in the blanks of a worksheet about how plants survive in a given environment.	Teacher asks a variety of questions similar to the following: Teacher says, "Describe a polar bear." Teacher says, "List some animals that use camouflage." Task: Students are asked to identify a plan and describe how an animal survives in a given environment.	Teacher asks a variety of questions similar to the following: Teacher says, "What are the physical features and characteristics of polar bears?" Teacher says, "Give examples of ways animals benefit from camouflage." Teacher says, "How does the environment influence plant and animal adaptation?" Task: Students are asked to evaluate whether an adaptation gives a plant or animal a survival advantage in a given environment.	In a small science group, students generate these questions from their science lab on plant and animal adaptation: Student says, "Let's explore what polar bears have in common with whales to make them survive such cold temperatures." Student says, "Let's explore why our class plant grew more in week two than all the other weeks. I wonder if our weather data will help us out."	

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 states, "Today, you are going to explore how plants also adapt to their environment." After reading the science article, the teacher shows a diagram of a plant with its different features labeled. After the teacher is finished reviewing the diagram, students copy it in their science notebooks.	Teacher states, "Today, you are going to explore how plants also adapt to their environment." Teacher reads the science article on plant adaptation. Teacher then tells students to read the article again independently and highlight key vocabulary and concepts.	Teacher states, "For the past few weeks, we have been studying how different animals adapt to their environment. Today, you are going to explore how plants also adapt to their environment. You will use the data from your class plant and your science guide to plan and carry out your own science investigation to answer this essential question: how do plants adapt to the conditions of their environment?"	Students suggest using the computer to find online videos and articles to design and carry out their own science investigation. They will analyze and interpret their data to answer this essential question: how do plants adapt to the conditions of their environment?

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			
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 consistently places students in the same homogeneous science groups. Students watch a video that teaches that conductors allow electrical currents to pass through them. After the video, the students independently complete a worksheet on electrical conductors.	Teacher places students in science groups and shows a video that teaches that conductors allow electrical currents to pass through them. After the video, the students discuss what they saw in the video.	Teacher arranges students in heterogeneous science groups. She notes that they have been learning about how electric currents flow through conductors. She asks them to watch a video on closed series circuits. After the video, the students construct closed series circuits and illuminate light bulbs. Students discuss with each other how the wires act as conductors, allowing the electric current to flow from the battery to the light bulb. The teacher then moves students to different science groups to share their circuits and explain how the electrical current flows from the source, to the light bulb and back.	Student select their own science groups based on the materials located in different centers around the room. In the centers, students work together to decide how to show which materials are strong conductors and which are not. They then make series circuits to test their materials before sharing their results with the rest of the class.

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:
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 presents lesson material to all students, incorporating questions to check understanding of the whole group. Teacher then assigns an individual science activity worksheet. Teacher says, "I am passing back your science worksheet. Please review the steps and fix any you got incorrect."	Teacher says, "Now that I have shown you how to find the factors that affect the pitch of two items made of different materials, you are going to do the same thing in your science groups. Today, use the object that I have placed on your science tables to determine at least one factor influencing the pitch for that object. Remember your science roles that you are assigned."	Teacher says, "Yesterday we explored the pitch and loudness of the sound produced by the vibrating tuning fork. Today, in your science groups, you will choose a variety of objects and determine the factors that affect the pitch. Use tables, diagrams, and science vocabulary to explain how you determined the factors that influence pitch. Assign a role for each of your group members. Bring your lab report to me when you finish so that I may check it over. I will be looking for all group members to participate."	In groups, students select their own materials. They discuss and plan their own experiments to test the factors that affect the pitch of objects. Students within their groups determine who will be responsible for the different steps in the experiment. The students then suggest that they share their steps and results on the class website for other groups to critique.

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	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 the simple musical instrument project and does not provide them with any criteria for success. Teacher says, "Use the materials on your desk to make a simple musical instrument. You should begin now."	Teacher states, "As we create the simple musical instrument, remember to clearly explain the logic of your design and demonstrate an understanding of key concepts from our unit."	Teacher states, "As we construct a simple musical instrument, we need to revisit our project rubric. We will be using the science rubric, which measures the quality of sound production, logical explanation and complexity of design, and demonstrated understanding of key concepts from our unit. Let's look at the rubric and make sure we understand the expectations." Students review the components of the rubric and give examples.	Student suggests, "We need to include something about the quality of sound production, and criteria for our explanations and designs"
	Teacher says, "When you have finished your first attempt of designing your simple musical instrument, turn them in and I will tell you what you are doing next."	Teacher says, "Before you turn your simple musical instrument in, be sure that you have checked your instrument carefully and met all the necessary criteria."	Teacher says, "We have scheduled three sessions to move from first draft through revisions to final draft of simple musical instrument project." Each day, groups will circulate around the room leaving feedback for other groups to consider before making changes. "During each science lab, I want you to be sure to read the comments from your classmates and decide which are helpful. Also, assess your own work using our rubric and make needed changes before moving onto your next stage of design."	One student says to another student, "We need to get out our science project rubric and check our instrument before we turn it in."

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	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 science worksheet on your desk so that I can come around and check them off. You don't have to pass these in to me; I just want to know that you finished it."	Teacher says, "Put your worksheet on your desk. Did everybody understand that sun, Earth and moon move in two different ways?" Students nod their heads, and the teacher says, "Good, we all got it."	Teacher checks in with each science group and asks questions to monitor and check students' understanding of the solar system. The teacher is recording anecdotal notes of student responses.	Students check each other's understanding of the solar system. Student says to their science partner, "The Earth moves in two ways. First, it spins which is why the sun looks like it is moving across the sky. It also rotates around the sun which makes the seasons change." Partner replies, "You are right because even though it looks like the sun moves across the sky during the day, and rises at different points in different seasons, it is really the Earth moving and not the sun." Teacher listens in to collect anecdotal notes.	

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	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	
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, "There are some confusing parts in your lab report. If you want, you can double-check your work to see if you can make your report clearer."	Teacher says, "You have done a relatively good job. Please add words to explain the data in your table."	Teacher says, "In your design of your experiment, you clearly showed how you will collect data. To make your experiment more effective, you could also plan how you will share your data with others. How could you use a table or diagram to show your outcomes?"	Teacher says, "As you prepare to work with your science groups to review your lab reports, remember to ask each other our guiding questions." (Teacher points to posted questions on the wall used to review work.)
			outcomes?	Questions on the wall:
				Are your steps clearly written?
				Did you use a table or diagram to share your data?
				Did you analyze and make interpretations based on the data in your lab report?
				Is your conclusion supported by your data?
				Did you share your lab report with another group and use their feedback to improve your presentation?
	Student says, "I think I am finished." Teacher says, "Look over your lab report again."	Student says, "I added a sentence explaining the data in my table, but I don't know what else to do."	Student says, "I added a table to show why cotton is more absorbent than cardboard, and wrote three sentences explaining how my table supports my conclusion like you said I should do."	Student says to another student, "You told me that my lab report was confusing to follow. I rewrote the steps I took. Can you review it and see if it is clearer?"

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 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 member of a science group asks for help, "We are not sure how to get started with this experiment." Teacher tells the whole group, "Do not worry about it right now. Just move on to the next step in the lab."	Teacher says, "I see that most of you completed your simple tests. That means that you can now analyze and interpret the data to draw conclusions about the materials we used. It looks like we can move on to how to use the data to identify the unknown minerals in a rock."	Students begin to work on their science experiment. One student says, "I am not sure how to start." Teacher then circulates around the classroom and notices that many students are not organizing the data into tables. She calls the large group together and reminds them, "When scientists are conducting experiments, they need to keep their data organized so that they can interpret it later and draw conclusions." She then models and conducts a simple test to determine properties of different minerals and organizes her data into a table. She then has the students try a simple test and organize their data into tables independently before sending them back to their seats to continue their work.	Teacher asks students to take on the role of the teacher and think of a rubric for today's lesson. Teacher continues, "We practiced identifying unknown minerals. I want you to give the lesson a rating on three things: 1. Clear explanation of how to use the data in your table to identify unknown minerals 2. Engaging work 3. Relevant work (connected the topic to the real-world) After you give each area a rating of 1, 2, 3, and 4, I want you to come up with something that I should do to make the lesson even better. What I will do is select at least one suggestion from each area and add that change in the next two or three days."