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Documentation for Class Observations

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NCTE YEAR 1-3 (2010-11, 2011-12, 2012-13)
Classroom Assessment Scoring System (CLASS)
Teachstone

Sample Code Descriptions
Upper Elementary Scoring Manual

Regard for Student Perspectives

Regard for Student Perspectives captures the degree to which the teacher is able to meet and capitalize on the social and developmental needs and goals of students by providing opportunities for student autonomy and leadership. Also considered are the extent to which student ideas and opinions are valued and content is made useful and relevant to students.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Flexibility and student focus • Shows flexibility • Follows students' leads • Encourages student ideas and opinions	The teacher rigidly provides all of the structure for the class and rarely follows students' leads or encourages student ideas and opinions.	The teacher provides structure for the class, but at times is flexible, follows students' leads, and/or encourages student ideas and opinions.	The teacher is flexible and consistently follows students' leads and encourages student ideas and opinions.
Connections to current life • Connects content to student life • Communicates usefulness	Material is not meaningfully connected to current experiences of students and information about how or why the material is of value to students is not presented.	Material is sometimes meaningfully connected to the current experiences of students and sometimes makes salient how or why the material is of value to students.	Material is meaningfully connected to the experience of students and is presented in such a way that students understand how or why it is of value to them.
Support for autonomy and leadership • Allows choice • Chances for leadership • Gives students responsibility • Relaxed structure for movement	Students infrequently have meaningful choices within lessons and are rarely provided with opportunities for leadership or responsibility.	Students have some choices within lessons and are given occasional opportunities for leadership or responsibility; however, these opportunities may be somewhat controlled by the teacher.	Students are provided with meaningful choices within lessons and are given authentic opportunities for leadership and responsibility.

Meaningful peer interactions • Peer sharing and group work	The teacher discourages peer-peer interactions that are meaningful within the context of the lesson.	The teacher provides some opportunities for peer-peer interactions, but they are somewhat superficial in nature.	The teacher promotes opportunities for peer-peer interactions that are meaningful and serve an integral role within the lesson.

LOW Regard for Student Perspectives (1,2)

The teacher rigidly provides all of the structure for the class and rarely follows students' leads or encourages student ideas and opinions. At the low end, the teacher rarely looks for opportunities to involve students in a meaningful, formative way within the classroom. Activities and lessons are inconsistent with students' interests and provide few opportunities for students to share their ideas. The teacher appears uninterested in understanding how the students "see the world" and in getting them to express these thoughts. During instruction, the teacher goes through lessons without asking questions or prompting for students' thoughts and ideas. Students who respond to a question with other than the expected answer are dismissed; questions or comments that are not clearly related to the correct answer are ignored. The teacher rigidly adheres to an agenda or plan at the expense of learning opportunities, students' interest, and spontaneous "teachable moments."

Material is not meaningfully connected to current experiences of students and information about how or why the material is of value to students is not made explicit. The content and instruction in this classroom appear largely based on the teacher's agenda. The teacher makes no effort to situate the required content in the current and future experiences of students and rarely connects content to current student culture (e.g., popular music, television programs, video games, etc.) or particular developmental issues of students. Further, the content and instruction are presented devoid of how they might be of value to the student. The lesson may be totally based on the text, curriculum guide, and/or standards, and the teacher makes no attempt to explain the value of working toward content mastery.

Students infrequently have meaningful choices within lessons and are rarely provided with opportunities for leadership or responsibility. Activities, instruction, and interactions in this class are teacher driven. The teacher rarely, if ever, provides opportunities within the lesson for students to assert their autonomy. Students rarely have choices of or within assignments and must complete tasks in a very rigid and prescribed way. Students rarely have opportunities to take responsibility for their own learning or for the community of learners; the teacher controls activities for the students. The teacher may also control all materials very tightly so that students have to ask the teacher's permission every time they want to use something, rather than having the responsibility to access materials on their own. Students are rarely given any specific roles, jobs, or opportunities for leadership in the classroom, or if they do have jobs, they are so heavily managed by the teacher that they do not have much chance to feel any actual responsibility. The teacher needlessly requires permission for movement or frequently reminds students that they must stay seated and quiet, even at times when this does not appear necessary.

The teacher discourages peer-peer interactions that are meaningful within the context of the lesson. The teacher rarely, if ever, allows students to interact constructively with one another. The teacher does not give students a chance to act as mentors or role models for one another. There is either no opportunity for small group work, or if it occurs, the teacher insists that students work very quietly within the

classroom without recognizing that effective group work necessitates a certain level of "constructive noise." Peer conversation within the context of the lesson or activity is discouraged by the teacher.

MID Regard for Student Perspectives (3,4,5)

The teacher provides structure for the class, but at times is flexible, follows student leads, and/or encourages student ideas and opinions. The class may seem moderately teacher-regimented, but some consideration is given to student ideas and opinions. At times students may be moved through activities and lessons following the teacher's plan and pace rather than the interests and understanding of the students; at other times the teacher may be more responsive to students' ideas and opinions and may go with the flow of their ideas. This teacher may listen to students' comments, but then fail to integrate them into the ensuing discussion/debate. In the mid range, the teacher may appear interested in students' opinions but then continue to ask other students in search of a "right" answer or one that agrees with the teacher's opinion.

Material is sometimes meaningfully connected to the current experiences of students and sometimes makes salient how or why the material is of value to students. The teacher in this classroom gives some consideration to making the material relevant and of value to students. The teacher attempts to relate required content to the experiences and daily lives of students, but the analogies may not be well developed. The teacher may address aspects of the future relevance to the students, but he may select examples that are not likely to connect with their interests or motivations. The teacher sometimes connects content to current student culture (e.g., popular music, television programs, video games, etc.) or particular developmental issues of students. While the lesson in this class may be based on the text, curriculum guide, and/or standards, the teacher makes an attempt to explain the value of working toward content mastery and makes an effort to situate the required content in the current and future experiences of students. This connection may be implicit and take the form of role play or authentic instruction (e.g. designing an experiment like a real scientist).

Students have some choices within lessons and are given occasional opportunities for leadership or responsibility; however, these opportunities may be somewhat controlled by the teacher. In the mid-range, the teacher does not fully foster student autonomy, but the students do have some choices of or within assignments and in how they complete tasks. Jobs or responsibilities within the classroom may be designed or managed by the teacher in such a way that students' ability to take true responsibility is limited. In discussions, the teacher is in control and assumes the role of "leader." There may brief opportunities for students to assume some degree of leadership, such as when students work in groups. In the mid range, the teacher sometimes requires students to be quiet and remain seated or request permission for movement, but for some periods of time students may move about freely, eat snacks, get up as needed, rearrange desks, etc. This freedom of movement is not to be confused with chaos, but is freedom of movement which students can have while not interfering with their own or others' learning.

There are some opportunities for peer-peer interactions, but they are somewhat superficial in nature. The teacher sometimes encourages or allows students to interact constructively with one another and will occasionally offer opportunities for peer interactions, but usually for short periods and sometimes in a superficial way. In the mid range teachers may also allow significant peer interaction, but these interactions are

primarily social, rather than instructional, in nature. The teacher gives students a chance to act as mentors or role models for one another, but at times, when students are working with peers, their interactions may not truly add meaning to the lesson; this may result when students do not take advantage of opportunities for meaningful peer interaction. Peer conversations are sometimes encouraged within the context of the lesson or activity, but at other times the teacher does not promote, and may even prohibit, constructive peer conversations.

HIGH Regard for Student Perspectives (6,7)

The teacher is flexible and consistently follows student ideas and opinions. Activities and lessons provide ample opportunities for students to share their ideas. The teacher appears genuinely interested in understanding how the students "see the world" and in getting them to express these thoughts. The teacher does not rigidly adhere to an agenda or plan at the expense of learning opportunities and students' interest in activities. The teacher is flexible and attentive to students' responses and uses these responses in the lesson. Going with the flow of students' ideas does not distract from the lesson, but allows the teacher to incorporate students' interests, ideas, and opinions into the lesson goals.

Material is meaningfully connected to the experiences of students and is presented in such a way that students understand how or why it is of value to them. The content and instruction in this classroom meets the needs and interests of the students in the class. The teacher at the high end consistently connects content to students' experiences, to current student culture (e.g., popular music, television programs, video games, etc.), and/or to particular developmental issues of students. The teacher also consistently explains the usefulness of mastering specific content and skills. Students have a deep understanding of how or why the information and/or skills being presented are important and the teacher situates the required content in the current and future experiences of students.

Students are provided with meaningful choices within lessons and are given authentic opportunities for leadership and responsibility. At the high end of Regard for Student Perspectives, the teacher makes appropriate decisions enabling students to be as autonomous as they can be within a given activity. Students may have choice in assignments, classroom organizational tasks, and working individually or in a group. Students have genuine responsibility in the classroom (planning special events, assisting with classroom procedures, etc.). In this class, students appear to be given opportunities to assume responsibility for their own learning or leadership for the community of learners. At times when these responsibilities are managed by the teacher, it is done in such a way that does not limit students' ability to take true responsibility. At the high end, students are consistently allowed freedom of movement throughout the lesson or activity. This freedom of movement does not result in chaos, but rather is appropriate movement that does not interfere with learning. For example, students are allowed to move as needed to gather supplies, rearrange desks for group work, etc.

There are opportunities for peer-peer interactions that are meaningful and serve an integral role within the lesson. The teacher structures the lesson and/or activities to promote constructive peer interactions that facilitate students' learning. The teacher fosters interactions that promote academic over strictly social exchanges. During discussions and group work, students talk openly with one another in a free exchange, give and take of ideas, which does not revolve around the teacher. At the high end, student talk may predominate or be equal to teacher talk.

REGARD FOR STUDENT PERSPECTIVES CLASSROOM EXAMPLES

Flexibility and student focus	**Low**	**High**
Shows flexibility	The teacher does not deviate from her lesson plan even when students are excited about a particular aspect of the lesson and want to talk about it in more depth.	A teacher introduces a novel unit by having students generate a list of novels they would like to read.
Follows students' leads	During a science lesson about erosion a student asks if erosion was a factor in the Dust Bowl. The teacher replies that they aren't talking about the Dust Bowl today.	As the teacher demonstrates how to convert fractions into mixed numbers, Samuel notes that his father taught him a neat way to check the accuracy of his work. The teacher asks him to come up to the board and demonstrate the strategy for the rest of the class.
Encourages student ideas and opinions	During a lesson on fractions, the teacher provides no opportunities for the students to share where they see fractions in their daily lives.	After teaching a lesson on fractions, the teacher asks students to share their ideas about how they can use this knowledge in their daily lives.
Connections to current life	**Low**	**High**
Connects content to student life	The teacher does not connect content to students' current lives. For example, when talking about solar energy, the teacher fails to point out that the new downtown mall has solar panels.	During a discussion about recent technological advances, the teacher asks students to think about how their lives would be different without the internet, cell phones, and texting.
Communicates usefulness	When the students are working on percentages, the teacher fails to show how understanding this concept will help them know the cost of an item on sale.	The teacher introduces the skill of estimation by having students complete a restaurant menu activity. She explains that this will help them when they go to restaurants in the future because they will be able to estimate the cost of their meal before they order.

Support for autonomy and leadership	**Low**	**High**
Allows choice	Students do not get to select their books for their independent reading projects. Instead, the teacher assigns them books to read based on what she thinks the students would like.	The teacher explains the activities that are available to help students understand their unit on light and asks, “Who would like to be in the group that is using mirrors to learn about how light refracts?” The teacher gives students wide latitude in how they may complete their project on foreign countries. She tells them that they can do a poster, a PowerPoint presentation, or write a paper.
Chances for leadership	Students tell the teacher that they would like to organize a coat drive for the homeless shelter and the teacher says that she does not think that is a good idea.	The teacher allows the students to plan the exhibit of their photography projects.
Gives students responsibility	The teacher tells students that they are going to brainstorm ideas for their projects, but then provides all of the ideas herself.	The teacher calls Allie up to have her demonstrate part of the lab experiment. After the students move into their small groups, they choose which roles they will pay in their groups: leader/facilitator, recorder, presenter, and materials manager.
Relaxed structure for movement	There is no evidence that students are free to move around the classroom. The teacher insists that students raise their hands for permission to move even if they just want to sharpen their pencils.	Students are free to get up and move around the room. They may even leave to go to the water fountain or restroom.
Meaningful peer interactions	**Low**	**High**

Peer sharing and group work	Students are required to complete their work independently and are not given a venue for sharing.	The teacher encourages students to talk to each other about the passage in the book they just read.

Content Understanding

Content Understanding refers to both the depth of lesson content and the approaches used to help students comprehend the framework, key ideas, and procedures[1] in an academic discipline. At a high level, this refers to interactions among the teacher and students that lead to an integrated understanding of facts, skills, concepts, and principles.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Depth of understanding • Emphasis on meaningful relationships among facts, skills, and concepts • Real world connections • Multiple and varied perspectives	The focus of the class is primarily on presenting discrete pieces of topically related information; broad, organizing ideas are not presented.	The focus of the class is sometimes on meaningful discussion and explanation of broad, organizing ideas, while at other times, it is focused on discrete pieces of topically related information.	The focus of the class is on encouraging deep understanding of content through the provision of meaningful, interactive discussion and explanation of broad, organizing ideas.
Communication of concepts and procedures • Essential components identified • Conditions for how and when to use the concept and/or procedure • Multiple and varied examples • Contrasting non-examples	Class discussion and materials fail to effectively communicate the essential attributes of concepts/procedures to students.	Class discussion and materials communicate a few of the essential attributes of concepts/procedures but examples are limited in scope or not consistently provided.	Class discussion and materials consistently and effectively communicate the essential attributes of concepts/procedures to students.
Background knowledge and misconceptions • Attention to prior knowledge • Explicit integration of new information	There is little effort made to elicit or acknowledge students' background knowledge or misconceptions or to integrate previously learned material when presenting new	There are some attempts to elicit and/or acknowledge students' background knowledge or misconceptions or to integrate information with previously learned material, but these moments are limited in depth or provided	New concepts/procedures/ broad ideas are consistently linked to students' prior knowledge in ways that advance understanding and clarify misconceptions.

[1] A procedure is a step-by-step process used to achieve a result related to a learning objective. Examples include, but are not limited to: steps in the Scientific Method, the steps necessary to graph an equation, the steps taken to write an introductory paragraph in an essay, the steps in having a debate, etc. A class can score highly on Content Understanding if the focus of the lesson is on having students deeply understand an academic procedure or skill.

• Attention to misconceptions • Students share knowledge and make connections	information.	inconsistently.	

Transmission of content knowledge and procedures[2] • Clear and accurate definitions • Effective clarifications • Effective rephrasing	Content/procedural knowledge is inaccurate or not presented clearly.	Content/procedural knowledge is sometimes effectively and accurately communicated to students; at other times, information is confusing and/or inaccurate.	Content/procedural knowledge is effectively and accurately communicated to students.
Opportunity for practice of procedures and skills[3] • Supervised practice • Independent practice	Students simply receive information about procedures and skills and do not have opportunities to practice procedures or skills relevant to the content area of the lesson.	The teacher occasionally incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson.	The teacher regularly incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson.

[2] Ideally, observers are knowledgeable about the content area for which they are observing. However, the focus here is not exclusively on accuracy of content, but rather on behavioral markers which may indicate the accurate transmission of content knowledge, even to observers without high levels of content knowledge.

[3] This indicator should only be scored if procedures or skills are a part of the lesson. Otherwise, do not include this indicator in the overall rating. Observers should not make judgments about whether procedures or skills should have been a focus of a lesson; rather, this indicator is scored low if a teacher **explicitly** talks about specific procedures or skills without providing opportunities for practice.

LOW Content Understanding (1,2)

The focus of the class is primarily on presenting discrete bits of topically-related information; broad, organizing ideas are not presented. At the low end, the teacher makes few or no attempts to develop or broaden students' understanding of concepts, either by linking facts with concepts, or by discussing the big ideas within a discipline. The emphasis is not on the meaningful relationships among facts, concepts, and generalizations; instead, it is primarily on discrete bits of information and facts that students are expected to remember and recall. Activities and instruction seem very abstract and removed from students' everyday lives, and the teacher does not help students apply their thinking to real world events and situations. There are few, if any, meaningful class interactions that reflect multiple or varied perspectives. At the low end, the teacher presents information from only one point of view or perspective. There is a sense that this perspective is "correct" rather than something that could or should be debated or looked at differently.

Class discussion and materials fail to effectively communicate the essential attributes of concepts/procedures to students. At the low end, the teacher does not present the defining or essential components of concepts or procedures. The teacher does not explain when to apply the conceptual or procedural knowledge; the teacher fails to include how and when the particular skills or concepts should be used. Rarely, if ever, does the teacher provide an example of the content being discussed. If a positive example is provided, it is usually prototypical, a basic clear cut exemplar of what is being taught, and students are not given the opportunity to reflect on its features and characteristics. The teacher also fails to use contrasting non-examples, or examples that are less obvious, to further student understanding.

There is little effort made to elicit or acknowledge students' background knowledge or misconceptions or to integrate previously-learned material when presenting new information. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the low end, the teacher gives little or no attention to students' prior knowledge; she rarely tries to identify what students already know about a subject in order to make links between the new material and what is known. Content is presented independent of students' understandings and previous knowledge. The teacher also fails to clarify misconceptions. The teacher does not have any expectations for students to integrate knowledge across disciplines, and the learning environment rarely provides opportunities for the students to share knowledge and make connections.

Content/procedural knowledge is inaccurate or not presented clearly. The teacher's knowledge of the subject matter appears limited and insufficient in order to support student learning. There are inaccuracies in the information that is presented, as may be observed by a lack of clear and accurate definitions. Content/procedural knowledge is presented at a very superficial level, and the teacher has difficulty answering questions that the students pose. In addition, in order to address student confusion, the teacher is unable to provide effective clarifications or rephrasing. For example, when several students claim that they do not understand the material presented, the teacher presents the material again using the same words and examples.

Students simply receive information about procedures and skills and do not have opportunities to practice procedures or skills relevant to the content area of the lesson. The teacher explicitly introduces procedures or skills, but does not present opportunities for students to practice new procedures and skills under supervision of the teacher with feedback regarding performance. For example, following the introduction of the steps to be used when graphing an equation, the teacher does not provide opportunities for students to practice, ask questions, and

receive feedback. Additionally, the teacher does not organize homework or in-class tasks that allow students to practice new procedures and skills independent of teacher monitoring or on-going feedback. For example, following the introduction to the steps to be used in graphing an equation, the teacher does not provide a way for students to demonstrate their facility with the new procedures or skills or expect that students will be able to solve math problems of this type without the opportunity for supervised practice. The observer should not make judgments about whether a teacher should or should not focus a lesson on procedures or skills, but rather only score this indicator as low if the teacher explicitly introduces procedures or skills and then fails to provide opportunities for practice. For example if the teacher tells students they will have a debate and then the debate begins, this indicator should not be scored. If, however, the teacher talks about what a debate is, providing specific guidance about the procedures and skill used in a debate but does not provide students an opportunity to practice, this indicator should be scored at the low end.

MID Content Understanding (3,4,5)

The focus of the class is sometimes on meaningful discussion and explanation of broad, organizing ideas and relevant procedural practice, while at other times it is focused on discrete bits of topically-related information. At the mid range, at times, the teacher focuses beyond the presentation and recall of discrete facts and bits of information to a deeper understanding of concepts and conceptual relationships, but at other times the teacher emphasizes more factual learning. The observer can expect to find a combination of focus; sometimes it will be on meaningful relationships among facts, concepts, and generalizations, but at other times it will be on isolated, discrete bits of information. The teacher makes some attempts for students to apply their thinking to real world events and situations, but sometimes these attempts may be weak or inappropriate. There are some meaningful class interactions that may incorporate multiple or varied perspectives, but they are not always clearly and appropriately related to the ideas under discussion. Sometimes the different perspectives may not contribute significantly to a greater depth of understanding for students, different perspectives may not be given equal weight, or the teacher may present one perspective as more correct than others. In the mid range a teacher may provide all the information without engaging students in a discussion of the content in a way that helps them understand the material at a deeper level.

Class discussion and materials communicate a few of the essential attributes of concepts/procedures, but examples are limited in scope or not consistently provided. In the mid range, the teacher occasionally presents the defining or essential components of concepts and procedures. At times, the teacher may explain when to apply the conceptual and procedural knowledge; the teacher may or may not explain the conditions for how or when the particular skills or concepts should be used. This teacher may sometimes present multiple positive examples of the content being discussed, including prototypical examples, and may sometimes use contrasting non-examples.

There are some attempts to elicit and/or acknowledge students' background knowledge or misconceptions or to integrate information with previously-learned material, but these moments are limited in depth or not consistently provided. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the mid range, the teacher sometimes attempts to discover and utilize the background knowledge of students and sometimes attempts to integrate it explicitly into new material, but at other times fails to do so. At times, the teacher may make only a vague reference to background knowledge that may not result in a more in-depth discussion or elaboration. The teacher sometimes looks for misconceptions and addresses areas of confusion or misinformation. At times, students share their knowledge and make connections in order to integrate the new experiences into their existing frameworks.

Content/procedural knowledge is sometimes effectively and accurately communicated to students; at other times, information is confusing and/or inaccurate. Generally, in the mid range, the teacher demonstrates sufficient knowledge of the material to support student learning at a level that meets the goals of the lesson, although the teacher's knowledge may not be sufficient to answer high level questions or

to support high levels of student thinking and understanding. At times, the teacher provides clear and accurate definitions and conveys a sense of comfort and familiarity with the material that extends beyond the textbook; at other times, he is unable to sufficiently answer questions. The teacher sometimes provides effective clarifications and rephrasing in order to address student confusion and answer most student questions.

The teacher occasionally incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson. At times the teacher leads the class in guided practice with new procedures and skills, but does not do so consistently or effectively for all students. For instance, following introduction of the procedures used to edit their essays, the teacher may check for proper performance of some students and provide guidance when needed, but not all students are directly observed or provided performance feedback. The teacher organizes homework or in-class assignments to practice new procedures and skills, but feedback is nonexistent, late, or not tied to student performance. The teacher may not provide feedback to the students on their work, the feedback may come after the unit is completed, or the feedback may be on the accuracy of the content rather than on the students' implementation of the procedure/skill.

HIGH Content Understanding (6,7)

The focus of the class is on encouraging deep understanding of content through the provision of meaningful, interactive discussion and explanation of broad, organizing ideas. At the high end, the teacher consistently focuses beyond the presentation and recall of discrete facts and bits of information to an understanding of concepts and conceptual relationships at a broader level. Facts are used to support ideas and concepts, but they are not the focus nor the measure of a student's understanding; the emphasis is on the meaningful relationships among facts, concepts, and generalizations. The teacher consistently helps students apply their thinking to real world events and situations that make the concepts more meaningful. Through meaningful class interactions, the teacher regularly and effectively presents and probes multiple, varied perspectives and points of view as a way of enhancing and refining student understanding. Rather than expecting students to support the teacher's perspective, the teacher is primarily concerned with students being able to understand the different perspectives and to support/substantiate whatever position they choose. This information is conveyed through discussion so that students are meaningfully engaged in the content.

Class discussion and materials consistently and effectively communicate the essential attributes of concepts/procedures. At the high end, the teacher consistently presents the defining or essential components of concepts/procedures. Attention is also paid to the conditions for how and when particular skills and knowledge should be used. This teacher puts considerable emphasis on helping the students to define and refine their understanding by presenting multiple and varied examples and contrasting non-examples. In addition, examples and non-examples that are less obvious are also included to further enhance students' understanding. At the high end this is not simply a brief statement, but rather there is significant depth in coverage of essential attributes of concepts and/or procedures.

New concepts/broad ideas are consistently linked to students' prior knowledge in ways that advance understanding and clarify misconceptions. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the high end, the teacher consistently attempts to discover and utilize the background knowledge that students bring with them. She pays attention to students' prior knowledge and then explicitly integrates the new information within the students' existing knowledge and frameworks. The teacher capitalizes on the opportunity not only to identify what is known, but also to clarify misconceptions. The learning environment encourages students to share knowledge and make connections. At the high end the teacher does not simply make a single statement linking new and previous knowledge, but rather conveys the connections in ways that help students fully integrate new knowledge with previous learning.

Content/procedural knowledge is effectively and accurately communicated to students. The teacher exhibits familiarity with all aspects of the lesson content/procedural knowledge and an ease in handling the material. Clear and accurate definitions are provided. Information presented is specific and rich in terms of examples, details, and insights. The teacher's knowledge appears to extend beyond that which is

needed for the lesson and can support student learning across a wide range including high level thinking skills and creative endeavors. The teacher can answer all levels of student questions and provide effective clarifications and rephrasing to address student confusion.

The teacher regularly incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson. The teacher uses guided practice with all new procedures and skills and provides clear, performance-based feedback to all students as they practice these procedures/skills. The teacher provides homework or in-class

assignments that allow students to practice all new procedures and skills in a meaningful way. Feedback is timely and tied to student performance, but is not given until the students have completed the task independently. The procedural practice assists in building students' automaticity with procedures that they can solve more complex problems.

CONTENT UNDERSTANDING CLASSROOM EXAMPLES

Depth of understanding	**Low**	**High**
Emphasis on meaningful relationships among facts, skills, and concepts	The teacher has students look up and memorize dictionary definitions for their vocabulary words.	The teacher explains how climate change has affected animal migration patterns. During a health unit on diet, students explore how diet and exercise contribute to reduced rates of heart disease.
Real world connections	The teacher conducts a lesson on climate change, but does not make an attempt to have the students think about how climate change affects them or the world around them.	The teacher asks students how climate change is affecting the habitat of the local wildlife. During a lesson on measurement, the teacher asks students, “What do you buy at the grocery store that is sold in liter containers?”
Multiple and varied perspectives	During a lesson on the relationship between Native Americans and Europeans, the teacher only refers to the textbook.	The teacher shows students primary sources from Colonial politicians and Native American leaders. She then asks students if they agree or disagree with these different points of view.
Communication of concepts and procedures	**Low**	**High**
Essential components identified	The teacher asks students to peer-edit each other’s personal stories without providing a rubric or instruction in how to edit.	In preparation for a trip to the art museum, the teacher talks about expressionist painting and the kinds of brush strokes, colors, and themes that characterize this genre of art.
Conditions for how and when to use the concept and/or procedure	During a unit on weather, the teacher shows the students a barometer but does not tell them why a meteorologist would use one.	When conducting a math lesson on the value of digits, the teacher explains how to express numbers in both the standard and the expanded form and explains when to use each form.

Multiple and varied examples	The teacher's lesson on sources of energy focuses primarily on electricity.	In addition to teaching about electricity and energy that comes from fossil fuels, the teacher also talks about solar energy, nuclear energy, wind, and geothermal energy.

Communication of concepts and procedures	**Low**	**High**
Contrasting non-examples	When talking about healthy diets, the teacher only talks about healthy foods that students should eat and doesn't mention unhealthy foods that they should avoid.	In a lesson on cylinders, the teacher provides examples of everyday objects that are cylinders (soda and tennis ball cans) and things that are not (box drinks and yogurt containers) and then has students brainstorm more non-examples.
Background knowledge and misconceptions	**Low**	**High**
Attention to prior knowledge	When introducing the difference between prime and composite numbers, the teacher does not ask students if they know what either concept means.	Before teaching a lesson on extending numerical patterns, the teacher asks students what experience they have with patterns and how they identify the pattern in a series of shapes.
Explicit integration of new information	The teacher conducts a lesson on the Cenozoic era, but does not connect the new information to what the students have already learned about the Mesozoic era that preceded it.	The teacher helps the students understand how the Montgomery bus boycott fit into the broader context of the Civil Rights movement.
Attention to misconceptions	Several students indicate that they believe that pigs carry swine flu. The teacher lets this statement go by and does not clarify this misinformation.	As the students explain their answers for their homework, the teacher notices that the students have made a mistake in how to convert fractions into decimals. She stops checking homework to point out the correct way to convert a fraction to a decimal.

Students share knowledge and make connections	During a discussion about the terrain in the American Southwest, the teacher is the only person sharing knowledge in the classroom. Students do not raise their hands to share any of their own connections.	As students discuss different types of governments, a student shares that he notices a connection between a democracy and a republic. The teacher reinforces the connection.
Transmission of content knowledge and procedures	**Low**	**High**
Clear and accurate definitions	During a lesson on *convex* and *concave*, the teacher confuses the definitions and ends up giving the students inaccurate information.	The teacher clearly and accurately defines the terms *convex* and *concave* and gives students an example of each.
Effective clarifications	When students say they don't understand why the chemicals reacted the way they did, the teacher says, "Go back to your textbook and look it up."	When students say they don't understand why the chemicals create a certain reaction, the teacher leads a discussion of what they know about each of the chemicals and repeats the experiment while students ask questions of the teacher and one another.

Transmission of content knowledge and procedures	**Low**	**High**
Effective rephrasing	When students say they do not understand the material that the teacher presented, she presents the material again using the same words and examples.	Some students do not understand the meaning of the new vocabulary word *osmosis*. The teacher rephrases the definition as such, "In osmosis, the water moves from an area where there are many water molecules to the side membrane where there are not."
Opportunity for practice of procedures and skills	**Low**	**High**

Supervised practice	After teaching the students how to do a long division problem, the teacher does not provide an opportunity for students to practice the procedure with the teacher's guidance, ask questions, and receive feedback.	After teaching the students the steps for solving a long division problem, the teacher and students solve several problems together, with the teacher asking guided questions and offering hints.
Independent practice	After teaching the procedure for converting Fahrenheit into Celsius degrees, the teacher does not provide the students the chance to independently practice the skill.	After learning the procedure for converting Fahrenheit into Celsius degrees, the teacher gives students an in-class assignment in which they practice the procedure independently. The teacher provides feedback on the students' performances after they have completed the assignment independently.