

Martinez – 4th Grade Math

Culture of Learning

Are all students engaged in the work of the lesson from start to finish?

1. Ineffective	2. Minimally Effective	3. Developing	4. Proficient	5. Skillful
Very few or no students complete instructional tasks, volunteer responses and/or ask appropriate questions.	Some students complete instructional tasks, volunteer responses and/or ask appropriate questions.	Most students complete instructional tasks, volunteer responses and/or ask appropriate questions.	All or almost all students complete instructional tasks, volunteer responses and/or ask appropriate questions.	All descriptors for Level 4 are met, and at least one of the following types of evidence is demonstrated:
Very few or no students follow behavioral expectations and/or directions	Some students follow behavioral expectations and/or directions	Most students follow behavioral expectations and/or directions	All or almost all students follow behavioral expectations and/or directions.	Students assume responsibility for routines and procedures and execute them in an orderly, efficient and self- directed manner, requiring no direction or narration from the teacher.
Students do not execute transitions, routines and procedures in an orderly manner.	Students execute transitions, routines and procedures in an orderly and efficient manner only some of the time and/or require substantial direction from the teacher.	Students execute transitions, routines and procedures in an orderly and efficient manner most of the time, though they may require some direction from the teacher.	Students execute transitions, routines and procedures in an orderly and efficient manner with minimal direction or narration from the teacher.	Students demonstrate a sense of ownership of behavioral expectations by holding each other accountable for meeting them.
Students are left without work to do for a significant portion of the class period.	Students are idle while waiting for the teacher or left with nothing to do for one or two minutes at a time.	Students are idle for short periods of time (less than one minute at a time) while waiting for the teacher to provide directions, when finishing assigned work early, or during transitions.	Class has a quick pace and students are engaged in the work of the lesson from start to finish. Students who finish assigned work early engage in meaningful learning without interrupting other students' learning.	

Evidence Summary:

In Mr. Martinez's 4th grade math classroom, all students are engaged in the work of the lesson from start to finish. For example, of the approximately 25 students, 100 percent work with partners or small groups to solve the given problems. Almost all students consistently engage in discussion with their peers about how they visualize, represent, and solve the mixed number problem. Most students raise their thumbs when asked as they visualize the math problem and several students volunteer to ask their peers questions about how they solved the problem.



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- Nearly all students follow behavioral expectations and directions throughout the lesson. When Mr. Martinez or a student is speaking, for example, all
 students remain quiet and attentive, focused completely on the speaker. When Mr. Martinez asks students if they should have their pencils in their hands
 during the presentation and inquiry of peer work, students respond with," no," and all students meet this expectation.
- Students execute transitions, routines, and procedures in an orderly and efficient manner with a single direction from the teacher. For example, the teacher says, "you can pick your own partners," at which point all students stand, quickly choose a partner and immediately begin working without further directions. Mr. Martinez begins speaking and all students immediately stop talking and listen. And when Mr. Martinez gives students 30 seconds to move back to their seats, 100% of students are seated at the end of the time given.
- The class has a quick pace and students are clearly familiar with and take ownership of the routines that ensure that all time is used effectively. Mr. Martinez begins with a quick opening visualization exercise and students immediately begin working collaboratively to solve the problem. If students finish early, they are prompted to provide a written response explaining how they solved the problem and several students support their peers in checking their work and identifying misconceptions.
- There are no interruptions and although students talk moderately during the transition periods, it detracts from neither the pace nor the engagement of the class. Every minute is maximized and all students are engaged in the work of the lesson.

Culture of Learning Rating	4



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Essential Content

Are all students working with content aligned to the appropriate standards for their subject and grade?

1. Ineffective	2. Minimally Effective	3. Developing	4. Proficient	5. Skillful
The lesson does not focus on content that advances students toward grade-level standards or expectations and/or IEP goals.	The lesson partially focuses on content that advances students toward grade-level standards or expectations and/or IEP goals.	The lesson focuses on content that advances students toward grade-level standards or expectations and/or IEP goals.	The lesson focuses on content that advances students toward grade- level standards or expectations and/or IEP goals.	All descriptors for Level 4 are met, and the following evidence is demonstrated:
Most of the activities students engage in are not aligned to the stated or implied learning goal(s) or to each other.	Only some activities students engage in are aligned to the stated or implied learning goal(s).	Most activities students engage in are aligned to the stated or implied learning goal(s) are well-sequenced and move students toward mastery of the grade-level standard(s) and/or IEP goal(s).	All activities students engage in are aligned to the stated or implied learning goal(s) and are well- sequenced and build on each other to move students toward mastery of the grade-level standard(s) and/or IEP goals.	Students make connections between what they are learning and other content across disciplines, their historical context (local, state, and national), and/or their current lives.
Instructional materials students use, such as texts, questions, problems, exercises and assessments, are not appropriately demanding for the grade/course and time in the school-year, based on guidance in the standards and/or students' IEP goals (ex. Lexile level and complexity of text).	Some instructional materials students use, such as texts, questions, problems, exercises and assessments, are not appropriately demanding for the grade/course and time in the school-year, based on guidance in the standards and/or students' IEP goals (ex. Lexile level and complexity of text).	Students execute transitions, routines and procedures in an orderly and efficient manner most of the time, though they may require some direction from the teacher.	All instructional materials students use, such as texts, questions, problems, exercises and assessments, are high-quality and appropriately demanding for the grade/course and time in the school-year, based on guidance in the standards and/or students' IEP goals (ex. Lexile level and complexity of text).	Students independently connect lesson content to real-world situations.

Evidence Summary:

• The lesson focuses on content that advances students towards the above grade-level standards for 4th grade math. Students are asked to visualize a fraction word problem (Brian runs 6 and 3/10s laps and Sebastian runs 5 and 9/10s laps. How many more laps did Brian run than Sebastian?), discuss what they know about the problem with a partner, and then solve and discuss the problem with partners using visual representations and written explanations. Mr. Martinez then displays selected student work and the students stand and answer questions to defend, justify and explain their answers for their peers. All content is focused on the addition/subtraction of mixed numbers with like denominators in the context of a real-world word problem.



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- All activities students engage in are aligned to the above 4th grade math standards, and are well-sequenced and build on each other to move students toward mastery of the content. Students visualize the problem, discuss it with a partner, and solve it using various visual representations with a partner or small group. Students then ask their peers to explain, justify, and examine their work.
- Instructional materials include a verbal and written mixed number with fraction problem, handouts with space to draw visual representations and provide written
- explanations of their responses, and a document camera used to highlight student work examples. Materials are high quality and appropriately demanding for 4th grade math and support content mastery.

Essential Content Rating

4



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Academic Ownership

Are all students responsible for doing the thinking in this classroom?

1. Ineffective	2. Minimally Effective	3. Developing	4. Proficient	5. Skillful
Students complete very little of the cognitive work during the lesson, such as reading, writing, discussion, analysis, computation, or problem solving; the teacher completes all or almost all of the cognitive work.	Students complete some of the cognitive work during the lesson, such as reading, writing, discussion, analysis, computation, or problem solving, but the teacher or a very small number of students complete most of the cognitive work.	Most students complete an appropriately challenging amount of the cognitive work during the lesson, such as reading, writing, discussion, analysis, computation, or problem solving, given the focus of the lesson the teacher completes some of the cognitive work (i.e.: expands on student responses) that students could own.	All or almost all students complete an appropriately challenging amount of the cognitive work during the lesson, such as reading, writing, discussion, analysis, computation, or problem solving, given the focus of the lesson. The teacher rarely finishes any of the cognitive work that students could own.	All descriptors for Level 4 are met, and at least one of the following types of evidence is demonstrated:
Very few or no students provide meaningful oral or written evidence to support their thinking.	Some students provide meaningful oral or written evidence to support their thinking.	Most students provide meaningful oral or written evidence to support their thinking.	All or almost all students provide meaningful oral or written evidence to support their thinking.	Students synthesize diverse perspectives or points of view during the lesson.
Very few or no students are using knowledge and evidence to form, articulate, and defend their answers and opinions.	Some students are using knowledge and evidence to form, articulate, and defend their answers and opinions	Most students are using knowledge and evidence to form, articulate, and defend their answers and opinions.	All or almost all students are using knowledge and evidence to form, articulate, and defend their answers and opinions.	Students independently show enthusiasm and interest in taking on advanced or more challenging content.
Students respond negatively to their peers' thinking, ideas, or answers.	Students do not respond to their peers' thinking, ideas, or answers, or do not provide feedback.	Students respond to their peers' thinking, ideas or answers, and provide feedback to their classmates.	Students respond to and build on their peers' thinking, ideas or answers.	
No students or very few students try hard to complete challenging academic work or answer questions.	Some students try hard to complete challenging academic work and answer questions.	Most students try hard to complete academic work and answer questions, even if the work is challenging.	Students routinely provide constructive feedback to their classmates and respond productively when a peer answers a question incorrectly or when they do	



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not agree with the response.

All or almost all students consistently try hard to complete academic work and answer questions, even if the work is challenging.

Evidence Summary:

- Almost all students are responsible for doing the thinking in Mr. Martinez's classroom. All students complete an appropriately challenging amount of the cognitive work during the lesson, including visualizing the problem as the teacher reads it aloud, discussing what they know about it with a partner, and solving the problem in partners using visual representations and written explanations of how they arrived at their solution. Students are also observed identifying errors in their thinking process and correcting them. The teacher works with individual students and consistently asks probing, open-ended questions that ensure the students carry the cognitive lift. For example, one questioning sequence with an individual student is as follows: "How did you get that? You had how many wholes? Is there a way you could visually represent that? What did you do? You took one away and did what? You added what to the 3? And what is that? What would be a whole there? 10 what? "Mr. Martinez ensures that the cognitive lift stays complete with the students.
- All students provide meaningful oral and/or written evidence to support their thinking. Students use a space on the worksheet to provide visual evidence to support their thinking as they solve the fraction problem. Students discuss solution strategies with their partners or small groups and use evidence within the question and from their knowledge of fractions to support their thinking. Selected students are asked to demonstrate, explain and justify their thinking and solutions in front of the class.
- Most students use knowledge and evidence to form, articulate, and defend their answers. They use visual models, including number lines circles for laps, and fraction bars to represent the numbers in the word problem. In the partner discussions, students explain their thinking and provide written evidence to support their answers. Students responds to their peers' thinking in partners, small groups and at the whole group level. For example, a student shows and explains his solution and is asked multiple questions by his peers to justify his method, elaborate on his thinking, and consider other methods of solving the problem. Students also respond to each other's thinking in partner collaboration. One student, for example, identifies a misconception on her partner's paper and helps her correct it by explaining how she could solve it correctly.
- All students consistently try hard to complete academic work and answer questions, even when the work is challenging. Every student addressed by the teacher attempts to answer each question, and the students at the front of the room respond to each question from their peers. All students attempt to solve the problem and explain their thinking.

Academic Ownership Rating



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Demonstration of Learning

Do all students demonstrate that they are learning?

1. Ineffective	2. Minimally Effective	3. Developing	4. Proficient	5. Skillful
Questions, tasks or assessments do not yield data that allow the teacher to assess students' progress toward learning goals.	Questions, tasks or assessments yield data that only partially allow the teacher to assess students' progress toward learning goals.	Questions, tasks or assessments yield data that allow the teacher to assess students' progress toward learning goals.	Questions, tasks or assessments yield data that allow the teacher to assess students' progress toward learning goals and help pinpoint where understanding breaks down.	All descriptors for Level 4 are met, and at least one of the following types of evidence is demonstrated:
Students have very few or no opportunities to express learning through academic writing and/or explanations using academic language.	Students have few opportunities to express learning through academic writing and/or explanations using academic language.	Students have some opportunities to express learning through academic writing and/or explanations using academic language.	Students have extensive opportunities to express learning through academic writing and/or explanations using academic language.	Students self-assess whether they have achieved the lesson objective and provide feedback to the teacher.
Very few or no students demonstrate how well they understand lesson content and their progress toward learning goals.	Some students demonstrate how well they understand lesson content and their progress toward learning goals through their work and/or responses.	Most students demonstrate how well they understand lesson content and their progress toward learning goals through their work and/or responses.	All students demonstrate how well they understand lesson content and their progress toward learning goals through their work and/or responses.	Students demonstrate that they make connections between what they are learning and how it advances their personal and professional goals.
Student responses, work and interactions demonstrate that most students are not on track to achieve stated or implied learning goals.	Student responses, work and interactions demonstrate that some students are on track to achieve stated or implied learning goals.	Student responses, work and interactions demonstrate that most students are on track to achieve stated or implied learning goals.	Student responses, work and interactions demonstrate that all or almost all students are on track to achieve stated or implied grade- level and/or IEP aligned learning goals.	Students monitor their own progress, identify their own errors and seek additional opportunities for practice.
Evidence Summary:				

• Most students demonstrate that they are learning. Questions and tasks yield data that allow Mr. Martinez to assess students' progress towards the learning goal and pinpoint where understanding breaks down. He listens in as students discuss the problem and uses data to select which students to work with individually. He also monitors student work and strategically selects students who use different solution methods to show and explain their work in front of the class. In his one-on-one interactions with students, Mr. Martinez watches their written progress and asks questions to guide their thinking and help them identify their own errors.



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- Student opportunities to express learning through academic writing and explanations include collaborative partner work, individual responses on the written task, and some students have the opportunity to show their work and explain their thinking to the class. Students are able to consider the task independently, solve it collaboratively, and reflect on their methods as a class.
- Most students demonstrate how well they understand lesson content and their progress towards being able to add/subtract mixed number fractions with like denominators. In the group of four, one student occasionally dominates the discussion and other students listen in or write down what she says. Student responses, work, and interactions demonstrate that most students are on track to being able to use a visual model to demonstrate the addition/subtraction of mixed number fractions with like denominators. Several students receive support from the teacher or from their peers to solve the problem and have not yet mastered the content.

Demonstration of Learning Rating

3

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Observation Notes: