

Mathematics Grades 3-5:

General Considerations for a New Illinois Learning Standards Classroom

[Category &	Full Implementation	Partial Implementation	Beginning Implementation
	Example of			
	Danielson			
	Connection			
	Primary	The teacher has read, references when appropriate and	The teacher has read and sometimes	The teacher has read and occasionally
	Resources	bases their instruction on the New Illinois Learning	bases their instruction on the New	bases their instruction on the New Illinois
Dimension 1		Standards for Mathematics, Progression documents, The	Illinois Learning Standards for	Learning Standards for Mathematics.
Dilliension 1		Publishers' Criteria, EQuIP Rubric, PARCC Model	Mathematics, appropriate Progression	
		Content Frameworks, and the PARCC Evidence Tables.	documents, and the PARCC Model	
			Content Frameworks.	
		 The teacher has researched alignment of all 	The teacher occasionally utilizes the	The teacher has not read or does not use
	Materials	coursework material to the appropriate grade-level	Toolkit for Evaluating the Alignment of	the Toolkit for Evaluating the Alignment
	(Curriculum)	of the New Illinois Learning Standards.	Instructional and Assessment Materials	of Instructional and Assessment Materials
	(Curriculum)	 The teacher has utilized the <u>Toolkit for Evaluating</u> 	to the CCSS to identify common pitfalls	to the CCSS.
		the Alignment of Instructional and Assessment	and necessary steps in creating a	
		Materials to the CCSS to identify common pitfalls	curriculum that is truly aligned to the	
		and necessary steps in creating a curriculum that is	letter and spirit of the New Illinois	
		truly aligned to the letter and spirit of the New	Learning Standards.	
		Illinois Learning Standards.		
		The teacher provides a safe and welcoming	The teacher provides a safe and	The teacher provides a safe classroom environment where students are
		classroom environment that promotes interaction,	welcoming classroom environment	expected to remain silent unless called
<u> </u>		communication, collaboration, and intellectual risk	that often promotes interaction,	upon, take good and accurate notes,
Dimension 3		taking.	communication, and collaboration.	follow all directions, and work
		The teacher directs the communication and	 The teacher often provides direct 	independently.
	Classroom	discovery of mathematical ideas by posing good	instruction and expects students to	 The teacher often provides direct
, l	Culture	questions, engaging students in worthwhile tasks,	answer similar problems with the	instruction to students and expects
		creating a culture that fosters students' creativity and	same process. Students rarely feel	students to answer similar problems
		understanding of mathematics.	comfortable taking intellectual risks.	with the same process that was demonstrated.
		The teacher frequently uses a student-centered	The teacher provides students with	The teacher rarely provides time for
		approach, where the teacher's role is facilitator.	worthwhile tasks and classroom time	students to collaborate or communicate
			to work in pairs or small groups to find the solutions.	with one another.
				 The teacher rarely uses a student-
			The teacher sometimes uses a	centered approach, where the teacher's
			student-centered approach, where the teacher's role is facilitator.	role is facilitator.
l			teacher's role is facilitator.	

Γ	Category &	Full Implementation		Partial Implementation		Beginning Implementation	
	Example of Danielson						
L	Connection						
	Assessment Literacy	 The teacher consistently uses assessment concepts and terminology correctly. [As defined in the Guidelines for Classroom Assessment] 	•	The teacher does not consistently use assessment concepts and terminology correctly.	•	The teacher does not use assessment concepts or terminology correctly.	
	Linking instruction and assessment	 The teacher implements both standards-aligned instruction and ongoing assessment aligned to standards to promote learning. 	•	The teacher inconsistently implements both standards-aligned instruction and ongoing assessment aligned to standards to promote learning.	•	The teacher does not implement both standards-aligned instruction and ongoing assessment aligned to standards to promote learning.	
	Selecting and designing assessment	 The teacher consistently selects and designs assessments based on the purpose for the assessment including what decisions will be influences by the results and the best method for assessing the expectations. 	•	The teacher inconsistently selects and designs assessments based on the purpose for the assessment including what decisions will be influences by the results and the best method for assessing the expectations.	•	The teacher infrequently selects and designs assessments based on the purpose for the assessment including what decisions will be influences by the results and the best method for assessing the expectations.	
	Administer and score assessment	 The teacher conscientiously administers and scores the New Illinois Learning Standards aligned assessments for the intended purpose, with accommodations as appropriate. 	•	The teacher inconsistently administers and scores assessments correctly.	•	The teacher seldom administers and scores assessments correctly.	
	Feedback	 The teacher consistently provides constructive feedback based assessment data to students to support attainment of the New Illinois Learning Standards expectations. 	•	The teacher inconsistently provides constructive feedback based assessment data to students to support attainment of the New Illinois Learning Standards expectations.	•	The teacher seldom provides constructive feedback based assessment data to students to support attainment of the New Illinois Learning Standards expectations.	
	Analyzing and using data	 The teacher consistently administers assessments (formative, interim and summative) and accurately analyzes assessment data to inform instruction. 	•	The teacher inconsistently administers assessments (formative, interim and summative) and analyzes assessment data to inform instruction.	•	The teacher infrequently administers assessments (formative, interim and summative) and does not analyze assessment data to inform instruction.	

Dimension	2

Category & Example of Danielson Connection	Full Implementation	Partial Implementation	Beginning Implementation
Using data to identify trends	The teacher independently and collaboratively works with team/grade level members to analyze data, identify trends in achievement, and suggest adjustments to curriculum to meet the New Illinois Learning Standards expectations.		
Reporting	The teacher reports assessment data reflecting progress or attainment of the New Illinois Learning Standards expectations clearly and concisely to appropriate stakeholders in a timely manner.	The teacher inconsistently reports assessment data reflecting progress or attainment of the New Illinois Learning Standards expectations clearly and concisely to appropriate stakeholders.	The teacher seldom reports assessment data reflecting progress or attainment of the New Illinois Learning Standards expectations clearly and concisely to appropriate stakeholders in a timely manner.
Vertical Alignment	The teacher has read the grade-level New Illinois Learning Standards for Mathematics for the grade above and below the class they are teaching. The teacher has met with other teachers in the same grade-level to discuss changes that have occurred, including new material to the grade-level and the material that is no longer in this grade. The teacher team has met with representatives from the grade above and the grade below to discuss any necessary transition steps as students interact with changing curriculum. The teacher recognizes what knowledge the students bring with them when entering the classroom and connects new information to what they will learn the following year. The teacher always makes connections.	The teacher has read the grade-level New Illinois Learning Standards for Mathematics for the grade above and below the class they are teaching. The teacher has noted changes to the curriculum, including new material to the grade-level and material that is no longer in this grade. The teacher recognizes what knowledge the students bring with them when entering the classroom and connects new information to what they will learn the following year. The teacher sometimes makes connections.	The teacher has read the grade-level New Illinois Learning Standards for Mathematics for the grade above and below the class they are teaching. The teacher rarely makes connections.



Mathematics: Key Shifts

Category	Full Implementation	Partial Implementation	Beginning Implementation
Focus	The teacher spends a significant amount of classroom time discussing grade-level, contentaligned standards that have been designated Major work by the PARCC Model Content Frameworks. In grades 3-5 students focus on developing an understanding and the fluency (Fluency is defined as efficient and accurate methods for solving problems. Students use flexibility in choosing methods and can explain their chosen method.) of multiplication, division, fractions, and decimals (place-value). Significant time is also spent on describing and analyzing two-dimensional shapes, properties of figures, and finding the volume of three-dimensional figures. The teacher revisits the critical areas (listed at the beginning of the grade-level standards in the New Illinois Learning Standards) throughout the year. The teacher allows students time to explore these key ideas and develop a strong conceptual understanding and procedural skill in a connected and meaningful way related to the world around them. Teachers do not add curriculum that is not directly stated in the appropriate grade-level standards. ISBE has created Math Curriculum Models to aid in achieving focus.	The teacher creates and/or selects lessons that make some natural connections between grade-level work, subsequent grade-level work, or between standards, domains, and clusters. The teacher occasionally develops lessons or units that follow the Progression documents, the PARCC Model Content Frameworks and the PARCC Evidence Tables. The teacher occasionally points out the connections to the students.	The teacher has not read and/or is not developing units and lessons based on the Major work as defined by the PARCC Model Content Frameworks. The teacher occasionally revisits the critical areas (listed at the beginning of the grade-level standards in the New Illinois Learning Standards) throughout the year. The teacher occasionally adds curriculum that is not stated in the appropriate grade-level standards.

Dimension 2

Category	Full Implementation	Partial Implementation	Beginning Implementation
Coherence	 The teacher creates and/or selects lessons that make natural connections to previous grade-level work, lay a natural foundation for subsequent grade-level work and make apparent connections between standards, domains and clusters. Material is developed referencing the Progression documents, the PARCC Model Content Frameworks and the PARCC Evidence Tables (specifically the integrated statements). Students should see partitioning of shapes as a visual representation of multiplication and division, scaled picture graphs can apply multiplication, ability to change decimals to fractions with denominators as multiples of ten, ability to use all four operations for measurement of liquid volume, mass and time, use of line plots with fractions, and connection of decimals to metric system and powers of ten. Mathematics builds upon itself creating an inherent evolution that makes sense. 	The teacher occasionally provides tasks for students to develop their understanding of mathematical concepts, become fluent with appropriate procedural skill, and recognize how and when mathematical concepts apply to the world around them. The teacher occasional coherently combines these into a lesson. Occasionally a teacher only addresses one of the three ideas in situations where more than one should be addressed: understanding, skill, or application.	The teacher creates and/or selects lessons that make little connection to previous grade-level work, subsequent grade-level work, or connections between standards, domains, and clusters. The teacher has not read or does not reference the Progression documents, the PARCC Model Content Frameworks or the PARCC Evidence Tables. Mathematical information is presented in a disjointed fashion.
Rigor	 The teacher coherently combines understanding, skill, and application into all tasks and lessons whenever possible. The teacher provides sufficient opportunities for students to develop their understanding of fractions and decimals as numbers, including number line representation. Tasks promote fluency in multiplication and division, addition, subtraction, and multiplication of multi-digit numbers. Tasks provide mathematical insight into the world around including application of four operations to liquid volume, mass, time, and line plots (including fractions). The teacher creates lessons and assessments representing the difficulty level inherent in the PARCC sample items, the progression documents, and Illustrative Mathematics tasks. 	 The teacher occasionally provides tasks for students to develop their understanding of mathematical concepts, become fluent with appropriate procedural skill, and recognize how and when mathematical concepts apply to the world around them. The teacher occasional coherently combines these into a lesson. Occasionally a teacher only addresses one of the three ideas in situations where more than one should be addressed: understanding, skill, or application. 	The teacher treats most mathematics and tasks as separate ideas in which a student only concentrates on learning conceptual understanding, procedural skill, or application. The teacher does not often coherently combine understanding, skill, and application into a task, lesson, or assessment.

Dimension 2



The Standards for Mathematical Practice

Dimension 1
All 8 Math Practice Standards

Category	Full Implementation	Partial Implementation	Beginning Implementation
MP1 - Make sense of problems and persevere in solving them	 A 3rd-5th grade teacher supports Mathematical Practice Standard 1 by providing worthwhile tasks that require students to work past the point that they would normally want to give up. The teacher provides time and tasks that require students to explain to themselves the meaning of a problem, look for ways to solve it, make attempts, and recognize when their attempt is not working and change course to try again. Students work independently or collaboratively to seek the meaning of a problem and look for efficient ways to represent and solve it. The teacher encourages students to use another method to check their work. The teacher allows the student's time to consider their own process and results without providing constant scaffolding, verifying answers, or limiting methods. Students may show signs of struggle, but have enough tools to rely on to work through this. Example Task 	 The teacher provides many worthwhile tasks that require students to work past the point they would normally want to give up. The teacher discusses and models the process to making sense of mathematical problems. The teacher occasionally reminds students or prompts students of the process. The teacher occasionally limits discussion or time on problems by providing direct instruction, scaffolding, answers, or demonstrating personal approach. 	 The teacher rarely provides worthwhile tasks or appropriate wait time. Often the teacher provides direct instruction on how to solve the problem. The teacher does not encourage students to check their answers to see if they make sense. Most tasks are completed the same way by everyone in the classroom with little to no discussion on the variety of strategies that could be used.

Dimension 1