



College and Career Readiness Standards-in-Action

**ADVANCED
UNIT**

WORKSHOP MATERIALS
MATHEMATICS

3

**OBSERVING COLLEGE
AND CAREER READINESS
STANDARDS-IN-ACTION**

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CCR CLASSROOM OBSERVATION TOOL FOR MATHEMATICS

This tool provides concrete examples of what college and career readiness (CCR) standards in mathematics look like in daily planning and practice. It is designed as a professional development tool for instructors, those who support instructors, and others working to implement CCR standards—it is not designed for use in evaluation.

Directions:

Under each core action, mark the indicators with either a “Y” (for “Yes, it is evident”) or an “N” (for “No, it is not evident”). If an indicator is not evident because it is not applicable in that particular observed lesson, then mark it as “N/A.”

Use the last row for each core action to make notes about what is seen and heard to support findings. The process for observing effective teaching and learning practices is not linear. In many cases, determinations about whether certain core actions and indicators are evident will not become clear until the lesson is over. Others will be evident early in the lesson. It is fine to take detailed notes and then review the notes after the lesson.

Core Actions:

Core Action 1. Curriculum content of the lesson matches the demands of CCR standards.

Core Action 2. Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.

Core Action 3. CCR standards are translated into lesson content that productively engages adult learners.

Core Action 4. The lesson is intentionally sequenced to build on and develop students’ skills and knowledge of specific content.

Core Action 5. Students’ levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.

Core Action 3. CCR standards are translated into lesson content that productively engages adult learners.	Y, N, or N/A
A. Students consistently participate actively in the lesson through class discussions and activities, group projects, etc., instead of mostly doing solitary seatwork or listening to extended lectures.	
B. Students have varied opportunities to apply what they are learning in authentic or practical adult-oriented contexts.	
C. When discussing or collaborating, a vast majority of students build on each other's observations or insights (e.g., showing variation in their solution methods).	
D. A vast majority of students display persistence with tasks and problems.	
<p>Evidence observed:</p>	

Core Action 5. Students' levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.	Y, N, or N/A
A. Instructor consistently checks for student understanding, using informal yet deliberate methods (e.g., walks around the room to check on students' work, monitors verbal responses, assigns short problems).	
B. Instructor consistently provides students with prompt, specific feedback to correct misunderstandings, reinforce learning, and help students revise their initial work.	
C. Instructor consistently provides strategic supports and scaffolds to students who need them (e.g., individualized or peer tutoring, re-teaching, review of basic skills).	
D. Instructor consistently provides extension activities for students who complete classwork early so they are not left idle or unchallenged.	
E. A vast majority of students evaluate and reflect on their own learning.	
<p>Evidence observed:</p>	



AGGREGATION AND SUMMARY OF OBSERVATION DATA FOR MATHEMATICS

Step 1 : Aggregating and summarizing observation data.

Using one column for each classroom observed, mark the indicator with either a **Y (Yes)**—when you determined it was present—or an **N (No)**—when you found it was not present. If an indicator is not present because it is not applicable in that particular observed lesson, then mark it as **N/A**. Calculate the overall observed classroom percentage by dividing the number of Y’s in a row by the total number of indicators that are marked with either a Y or an N. (Do not include the N/A’s in this calculation.) If the # of Y’s is less than 50%, put a checkmark in the last column.

Core Action 1. Curriculum content of the lesson matches the demands of CCR standards.	CLASSROOMS OBSERVED										Total # of Y's	% of Y's	Check if less than 50%
	1	2	3	4	5	6	7	8	9	10			
A. Instructor presents a lesson clearly reflecting CCR content standards.													
B. Instructor presents a lesson that addresses the Standards for Mathematical Practice that are central to the goals of the lesson and connected with the targeted content.													
C. Instructor presents a lesson that matches the full depth of the requirements in the standard(s) being addressed.													
D. Instructor establishes well-defined standards-based lesson goals.													
E. Instructor presents a lesson that focuses on standards representing or supporting the Major Work of the Level (MWOTL).													
F. When addressing the MWOTL, the instructor intentionally targets one or more aspects of rigor (conceptual understanding, procedural skill and fluency, or application) as appropriate for the addressed standard(s).													

AGGREGATION AND SUMMARY OF OBSERVATION DATA FOR MATHEMATICS

Core Action 2. Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.	CLASSROOMS OBSERVED										Total # of Y's	% of Y's	Check if less than 50%
	1	2	3	4	5	6	7	8	9	10			
A. High-quality, challenging questions and problems prompt students to discuss their developing thoughts about the lesson content.													
B. Students have opportunities to work with and practice level-specific problems and exercises.													
C. Instructor consistently uses explanation, modeling, or examples to make the mathematics of the lesson explicit.													
D. Instructor consistently allows appropriate wait time after asking questions of students before prompting them for responses.													
E. Students consistently use precise mathematics in their calculations, terminology, symbols, graphs, etc.													
F. Instructor consistently asks students to elaborate on and justify their responses.													

Core Action 3. CCR standards are translated into lesson content that productively engages adult learners.	CLASSROOMS OBSERVED										Total # of Y's	% of Y's	Check if less than 50%
	1	2	3	4	5	6	7	8	9	10			
A. Students consistently participate actively in the lesson through class discussions and activities, group projects, etc., instead of mostly doing solitary seatwork or listening to extended lectures.													
B. Students have varied opportunities to apply what they are learning in authentic or practical adult-oriented contexts.													
C. When discussing or collaborating, a vast majority of students build on each other's observations or insights (e.g., showing variation in their solution methods).													
D. A vast majority of students display persistence with tasks and problems.													

Core Action 4. The lesson is intentionally sequenced to build on and develop students' skills and knowledge of specific concepts.	CLASSROOMS OBSERVED										Total # of Y's	% of Y's	Check if less than 50%	
	1	2	3	4	5	6	7	8	9	10				
A. Instructor explicitly relates new concepts to students' knowledge.														
B. Instructor organizes lesson concepts in a way that builds on their logical connections to each other.														
C. Instructor makes it clear how the content of the lesson supports, and is connected to, future learning.														
D. Instructor ends the lesson by: <ul style="list-style-type: none"> • Reviewing lesson goals; and • Summarizing student learning with references to student work and discussion. 														

Core Action 5. Students' levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.	CLASSROOMS OBSERVED										Total # of Y's	% of Y's	Check if less than 50%	
	1	2	3	4	5	6	7	8	9	10				
A. Instructor consistently checks for student understanding, using informal yet deliberate methods (e.g., walks around the room to check on students' work, monitors verbal responses, assigns short problems).														
B. Instructor consistently provides students with prompt, specific feedback to correct misunderstandings, reinforce learning, and help students revise their initial work.														
C. Instructor consistently provides strategic supports and scaffolds to students who need them (e.g., individualized or peer tutoring, re-teaching, review of basic skills).														
D. Instructor consistently provides extension activities for students who complete classwork early so they are not left idle or unchallenged.														
E. A vast majority of students evaluate and reflect on their own learning.														

Step 2 : Setting priorities for professional development.

Your program’s priorities for instructional staff professional development may be based on multiple factors, including overall program goals and objectives and multiple federal or state initiatives that may be driving your program. Following are some brief guidance points:

1. Note which indicators were observed in less than half of the classes. Record this information by placing checkmarks in the following chart.

Core Actions	Indicators Observed in Less Than 50% of Classes					
	A	B	C	D	E	F
Core Action 1: Curriculum content of the lesson matches the demands of CCR standards.						
Core Action 2: Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.						
Core Action 3: CCR standards are translated into lesson content that productively engages adult learners.					N/A	N/A
Core Action 4: The lesson is intentionally sequenced to build on and develop students’ skills and knowledge of specific concepts.					N/A	N/A
Core Action 5: Students’ levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.						N/A

2. Determine which one or two core action areas present the greatest challenge(s) for instructors:

3. Record the priorities for professional development related to strengthening classroom instruction in the core action areas generated by discussion with instructional staff:



SAMPLE AGGREGATION AND SUMMARY OF OBSERVATION DATA FOR MATHEMATICS

Step 1 : Aggregating and summarizing observation data.

Using one column for each classroom observed, mark the indicator with either a **Y (Yes)**—when you determined it was present—or an **N (No)**—when you found it was not present. If an indicator is not present because it is not applicable in that particular observed lesson, then mark it as **N/A**. Calculate the overall observed classroom percentage by dividing the number of Y’s in a row by the total number of indicators that are marked with either a Y or an N. (Do not include the N/A’s in this calculation.) If the # of Y’s is less than 50%, put a checkmark in the last column.

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SAMPLE AGGREGATION & SUMMARY OF OBSERVATION DATA FOR MATHEMATICS

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Core Action 2: Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.						
Core Action 3: CCR standards are translated into lesson content that productively engages adult learners.					N/A	N/A
Core Action 4: The lesson is intentionally sequenced to build on and develop students’ skills and knowledge of specific concepts.					N/A	N/A
Core Action 5: Students’ levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.						N/A

2. Determine which one or two core action areas present the greatest challenge(s) for instructors:

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