



MULTI-TIERED SYSTEM OF SUPPORT
 NC Department of Public Instruction

North Carolina Early Numeracy Skill Indicators (NCENSI) and Math Computation Introduction- 2017

The Need

- Universal Screening and Progress-Monitoring are critical needs when implementing an MTSS
- Access to these tools is currently not equitable across NC



- The release of the K-3 math measures (NCENSI and math computation measures) is part of a larger project begun by NCDPI to ensure equitable access to quality universal screening and progress-monitoring tools across the state for FREE and OPTIONAL use.
- NC has already committed, first through the implementation of Read to Achieve, to the importance of early identification and prevention activities that begin with valid and reliable screening tools for literacy.
- To expand upon this important work, the first goal is to provide similar access for the area of early mathematics in grades kindergarten- 3rd grade.




Two measure types offered

NCENSI	Math Computation
Grades K-3	Grades 1-3
Appropriate for screening and/or monthly progress- monitoring	Appropriate for screening and/or up to twice monthly progress-monitoring
Measures skills that demonstrate number sense at the quantitative, structural and symbolic level	Measures computational efficiency
Individual administration	Group or individual administration



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<p>NCENSI- Where did these come from?</p> <ul style="list-style-type: none">• Modified from measures originally developed by Dr. Scott Methe called eNumeracy• Over 10 years of research conducted to construct and validate previous to national release• NC team assessed usability through a project conducted winter and spring 2017 across 5 schools in Asheville City Schools and Nash-Rocky Mount Public Schools 	<p>NC Validation Results:</p> <ul style="list-style-type: none">• Sample (over a 1000 students and 40 teachers)• Student measure and teacher surveys/focus groups• <u>Purposes of usability study</u>- teacher acceptability and feasibility, alignment to instructional approaches, system of support needed for usage• <u>Results</u>-<ul style="list-style-type: none"><input type="checkbox"/> decrease number of measures<input type="checkbox"/> appropriate sequence for progress-monitoring measures<input type="checkbox"/> recommendation to lessen the burden on teachers through a cadre approach to screening<input type="checkbox"/> recommendation for score types<input type="checkbox"/> minor language and format changes to materials
<p>Math Computation- Where did these come from?</p> <ul style="list-style-type: none">• Constructed based on the Curriculum-Based Measure research base• Computational fluency skills included based on end of grade level standards• Alternate equivalent forms constructed with item type and complexity accounted for in each form• NC team validated for use through a project conducted winter and spring 2017 across 5 schools in Asheville City Schools and Nash-Rocky Mount Public Schools 	
<p>Comprehensive Assessment System- Purposes</p> <p>Inform Instruction</p> <ul style="list-style-type: none">Identify students that are at-riskIdentify why students are at-riskMonitor student growth/progressDetermine if we met outcomesDetermine health of core instruction 	<p><u>To identify students that may be at-risk</u></p> <p><u>To monitor student growth or progress over time</u></p> <p><u>Used as one piece of data to determine the overall health of core instruction</u></p> <p>Although these measures will give educators important information about what students can and cannot do, <i>they are not meant to give a comprehensive view of why students may be at-risk</i>. These measures are not diagnostic in their design. These measures give teams information about risk and may give some information into a student's mastery of conceptual skills, when a student is at-risk the team may need to examine other data sources to ensure they understand next steps for that student or group of students.</p>



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Measures available at each grade level	<u>Measures Available</u>			
	K	<u>1st</u>	<u>2nd</u>	<u>3rd</u>
		<u>Math Computation- Whole Group Administration</u>		
	<u>Counting Arrays</u>	<u>Ordering Number</u>	<u>Verbal Addition and Subtraction</u>	<u>Verbal Multiplication and Division</u>
	<u>Matching Quantity to Numeral</u>	<u>Decomposing Numeral</u>	<u>Place Value Matching Quantities</u>	<u>Place Value Rounding</u>
	<u>Ordering Number</u>	<u>Place Value</u>	<u>Place Value Computation</u>	<u>Place Value Multiplication</u>
	<u>Ordinal Position</u>	<u>Verbal Addition and Subtraction</u>	<u>Expression Identification</u>	<u>Expression Identification</u>
	<u>Decomposing Quantities</u>	<u>Number Recognition</u>		
	<u>Number Recognition</u>			



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Score types	NCENSI	Computation
	Total Correct	Digits Correct
	Per Minute Rate	
Options for use	<ul style="list-style-type: none"> • FREE, FLEXIBLE AND OPTIONAL!!! • After an initial training, LEAs will gain access to the materials 	
How to access	<ul style="list-style-type: none"> • Attend initial training with team to include: MTSS Coordinator, Math Instruction/Curriculum Leader, and one other school or district leader • Think through implementation carefully with your NCDPI consultants • Ensure a solid implementation plan- not one more thing for teachers to do without support! 	
Training Information	<ul style="list-style-type: none"> • July 24, 2017- West- https://www.eventbrite.com/e/introduction-to-nc-univ-screening-and-progress-monitoring-system-tickets-35353504283 • July 25, 2017-Asheboro- https://www.eventbrite.com/e/asheboro-introduction-to-nc-univ-screening-and-progress-monitoring-system-tickets-35353538385 • July 26, 2017- Rocky Mount- https://www.eventbrite.com/e/rocky-mount-introduction-to-nc-univ-screening-and-progress-monitoring-system-tickets-35353609598 • July 27, 2017- Jacksonville- https://www.eventbrite.com/e/jacksonville-introduction-to-nc-univ-screening-and-progress-monitoring-system-tickets-35353698865 	
Can't make July training?	Complete this survey: https://www.surveymonkey.com/r/fallunivpm	
Questions?	Reach out to your regional MTSS Consultant! http://mtss.ncdpi.wikispaces.net/Regional+Consultants Or Amy Jablonski (Amy.jablonski@dpi.nc.gov)- Director of Integrated Academic and Behavior Systems	



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