



Louisiana Teacher Preparation Competencies

Mathematics Update - October 2023

The 2023 legislative session produced two acts impacting teacher preparation and training. Excerpts from [Act 347](#) and [Act 260](#) are listed below. Act 347 requires updates to the [Louisiana Teacher Preparation Competencies](#). Suggested edits to the Mathematics Content Competencies and Content Pedagogy Competencies are provided below alongside the original text.

[Act 347](#)

- (4) That the program shall include instruction on foundational numeracy skills that includes but need not be limited to the following:
- (a) Effectively teaching foundational mathematics skills explicitly and systematically.
 - (b) Implementing effective mathematics instruction using high-quality instructional materials.
 - (c) Providing effective instruction and interventions for students who have difficulty with mathematics.
 - (d) Understanding and using student data to make instructional decisions.

[Act 260](#)

- (1) "Approved professional development course" means a numeracy skills instruction course to be presented during the educator's work day, but not during the statutorily guaranteed planning period, designed for the professional development of educators that includes information on instructing students regarding the vertical alignment of mathematical concepts and the blending of concepts, procedures, strategies, problem-solving, and disposition.



Louisiana Mathematics Teacher Competencies Updates

§329. Introduction

A. The mathematics teacher preparation competencies identify essential knowledge and skills for teacher candidates seeking certification in birth to kindergarten, pre-kindergarten-third grade, elementary grades 1-5, elementary grades 1-5 integrated to merged, mathematics grades 4-8, mathematics grades 4-8 integrated to merged, mathematics 6-12, and mathematics 6-12 integrated to merged.

§331. Content Knowledge Competencies

A. Utilizing the academic standards for mathematics for the certification grade band and adjacent grade bands, the teacher candidate, at minimum, demonstrates the following competencies to plan for instruction, teach, and assess student learning:

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**Louisiana Mathematics Teacher Competencies
(Approved October 2016)**

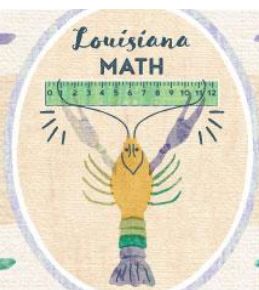
**Louisiana Mathematics Teacher Competencies
(Suggested Edits October 2023)**

1. provides exact, explicit definitions of mathematical ideas and concepts using appropriate mathematical language;

no change

2. provides precise, accurate, useful descriptions of algorithms and procedures, including descriptions of the accuracy of alternative procedures or algorithms;

2. builds foundational numeracy by providinges precise, accurate, useful descriptions of algorithms and procedures, including descriptions of the accuracy of alternative procedures or algorithms while blending concepts, procedures, strategies, problem-solving skills, and dispositions;



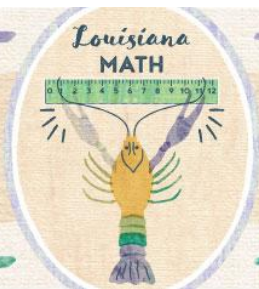
Louisiana Mathematics Teacher Competencies (Approved October 2016)	Louisiana Mathematics Teacher Competencies (Suggested Edits October 2023)
3. exhibits an integrated, functional grasp of mathematical concepts and procedures;	3. exhibits an integrated, functional grasp of <u>foundational numeracy</u> , mathematical concepts, and procedures <u>along the grade K- 12 mathematical progressions so that all students are prepared for success in Algebra I and beyond</u> ;
4. explains concepts and executes procedures flexibly, accurately, efficiently, and appropriately;	4. no change
5. models the mathematical dispositions and habits of mind described in the practice standards, including precision of language, logical thought, reflection, explanation, and justification;	5. models the mathematical dispositions and habits of mind described in the practice standards <u>and integrated within high-quality instructional materials</u> , including precision of language, logical thought, reflection, explanation, and justification;
6. recognizes and uses the connections between the topics identified in the relevant standards and problems arising in real-world applications; and	6. recognizes <u>vertical alignment in the grade K-12 mathematical standards</u> and uses the connections between the topics identified in the relevant standards and problems arising in real-world applications; and
7. portrays mathematics as sensible, useful, and worthwhile.	7. <u>builds positive math dispositions while</u> portrayings mathematics as sensible, useful, and worthwhile.
New competency added	8. Teaches foundational mathematics skills explicitly and systematically applying strategies to assess instructional effectiveness.



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<p>§333. Content Pedagogy Competencies</p> <p>A. The teacher candidate applies knowledge of mathematical topics and relationships within and across mathematical domains to identify key mathematical ideas and select or design mathematically sound lesson sequences and units of study that develop student conceptual understanding, procedural skill and fluency, and ability to solve real-world and mathematical problems.</p>	<p>§333. Content Pedagogy Competencies</p> <p>A. The teacher candidate <u>builds and</u> applies knowledge of <u>within grade coherence and vertical alignment of</u> mathematical topics and relationships within and across mathematical domains to identify key mathematical ideas and select or design <u>implements</u> mathematically sound lesson sequences and units of study <u>within high-quality materials</u> that develop student <u>foundational numeracy</u>, conceptual understanding, procedural skill and fluency, and ability to solve real-world and mathematical problems <u>to prepare students for success in Algebra I and beyond</u>.</p>
<p>1. The teacher candidate appropriately sequences content for instruction within a lesson or unit of study and plans appropriate scaffolding to provide opportunities for students to access and master grade-level standards.</p>	<p>1. The teacher candidate appropriately sequences content for instruction within a lesson or unit of study and <u>implements effective mathematics instruction using high-quality instructional materials through</u> <u>planings</u> appropriate scaffolding to provide opportunities for students to access and master grade-level standards.</p>
<p>2. The teacher candidate anticipates student misconceptions which may arise during a lesson or unit of study, identifies key points in the lesson or unit to check for misconceptions and identifies appropriate instructional strategies to respond to misconceptions, including but not limited to questioning, whole group discussion, problem sets, instructional tools, and representations that make the mathematics of the lesson explicit.</p>	<p>2. The teacher candidate anticipates student misconceptions <u>or math difficulty</u>, which may arise during a lesson or unit of study; identifies key points in the lesson or unit to check for misconceptions; and identifies appropriate instructional strategies to respond to misconceptions, including but not limited to questioning, whole group discussion, problem sets,</p>



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<p>3. The teacher candidate selects or designs standards-based tasks that use varied strategies, including but not limited to real-life applications, manipulatives, models, and diagrams/pictures that present opportunities for instruction and assessment.</p>	<p>3. The teacher candidate selects or designs <u>identifies and implements</u> standards-based tasks <u>within high-quality instructional materials</u> that using varied strategies, including but not limited to real-life applications, manipulatives, models, and diagrams/pictures that present opportunities for instruction and assessment.</p>
<p>4. The teacher candidate selects or designs practice sets that include scaffolding and differentiation of mathematical content to provide opportunities for students to develop and demonstrate mastery.</p>	<p>4. The teacher candidate selects or designs <u>customizes lessons and</u> practice sets <u>within high-quality instructional materials</u> that include scaffolding and differentiation of mathematical content to provide opportunities for students to develop and demonstrate mastery.</p>
<p>5. The teacher candidate identifies appropriate student groupings, such as pairs or small groups, to develop student conceptual understanding, skill, and fluency with mathematical content as well as independent mathematical thinking</p>	<p>5. The teacher candidate <u>uses student data to identify</u> appropriate student groupings, such as pairs or small groups, to develop student conceptual understanding, skill, and fluency with mathematical content as well as independent mathematical thinking</p>
<p>New competency added</p>	<p>6. The teacher candidate <u>provides effective interventions for all students by using an accelerating learning approach, connecting unfinished learning to new learning within grade-level content, and utilizing high-quality materials to provide just-in-time support, especially for those with difficulty in mathematics.</u></p>



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<p>B. The teacher candidate applies understanding of student mathematical language development to provide regular opportunities during instruction for students to explain understanding both in writing and orally through classroom conversations.</p>	
<p>1. The teacher candidate explains the connection between informal language to precise mathematical language to develop student ability to use precise mathematical language in explanations and discussions.</p>	<p>NO CHANGE</p>
<p>C. The teacher candidate applies understanding of the intersection of mathematical content and mathematical practices to provide regular, repeated opportunities for students to exhibit the math practices while engaging with the mathematical content of the lesson, including but not limited to the following:</p>	<p>NO CHANGE</p>
<p>1. using appropriate prompting and questioning that allows students to refine mathematical thinking and build upon understanding of the mathematical content of the lesson;</p>	<p>NO CHANGE</p>
<p>2. posing challenging problems that offer opportunities for productive struggle and for encouraging reasoning, problem solving, and perseverance in solving problems through initial difficulty;</p>	<p>2. posing challenging problems that offer opportunities for productive struggle and for encouraging reasoning, problem-solving, and perseverance in solving problems through <u>an</u> initial difficulty;</p>



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3. facilitating student conversations in which students are encouraged to discuss each other's thinking in order to clarify or improve mathematical understanding;	NO CHANGE
4. providing opportunities for students to choose and use appropriate tools when solving a problem; and	NO CHANGE
5. prompting students to explain and justify work and providing feedback that guides students to produce revised explanations and justifications.	NO CHANGE
D. The teacher candidate applies knowledge of mathematical topics and relationships within and across mathematical domains to select or design and use a range of ongoing classroom assessments, including but not limited to diagnostic, formal and informal, formative and summative, oral and written, which determine student mastery of grade-level standards in order to inform and adjust planning and instruction.	



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<p>1. The teacher candidate identifies errors, gaps, and inconsistencies in student knowledge, skills, and mathematical reasoning to remediate or scaffold student learning during lesson implementation, using, but not limited to, the following strategies:</p> <ul style="list-style-type: none"> a. oral and written explanations of the elements and structures of mathematics and the meaning of procedures, analogies, and real life experiences; b. manipulatives, models, and pictures or diagrams; and c. problem sets. 	<p>The teacher candidate identifies <u>student difficulties</u>, errors, gaps, <u>unfinished learning</u>, and inconsistencies in student knowledge, skills, and mathematical reasoning to remediate <u>accelerate</u> or scaffold student learning during lesson implementation, using, but not limited to, the following strategies:</p> <ul style="list-style-type: none"> a. oral and written explanations of the elements and structures of mathematics and the meaning of procedures, analogies, and real-life experiences; b. manipulatives, models, and pictures or diagrams; and c. problem sets.
<p>2. The teacher candidate uses trends in assessment results to plan lesson structure and sequence, instructional strategies, remediation, and enrichment opportunities for students.</p>	<p>2. The teacher candidate <u>uses student data to address difficulty with mathematics and</u> uses trends in assessment results to plan lesson structure and sequence, instructional strategies, remediation <u>learning acceleration</u>, and enrichment opportunities for students <u>within adopted high-quality instructional units of study</u>.</p>
<p>New competency added</p>	<p><u>3. Effectively use student data to make instructional decisions. Student data includes but is not limited to classroom observations of discussions, oral reasoning, work samples, formative assessments, and summative assessments.</u></p>
<p>New competency added</p>	<p><u>4. The teacher candidate regularly monitors student performance and student understanding.</u></p>

