NV ELD STANDARDS AND INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 4-5

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SECTION 1: INTRODUCTION TO NV ELD STANDARDS AND INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 4-5

1A. Purpose and Organization

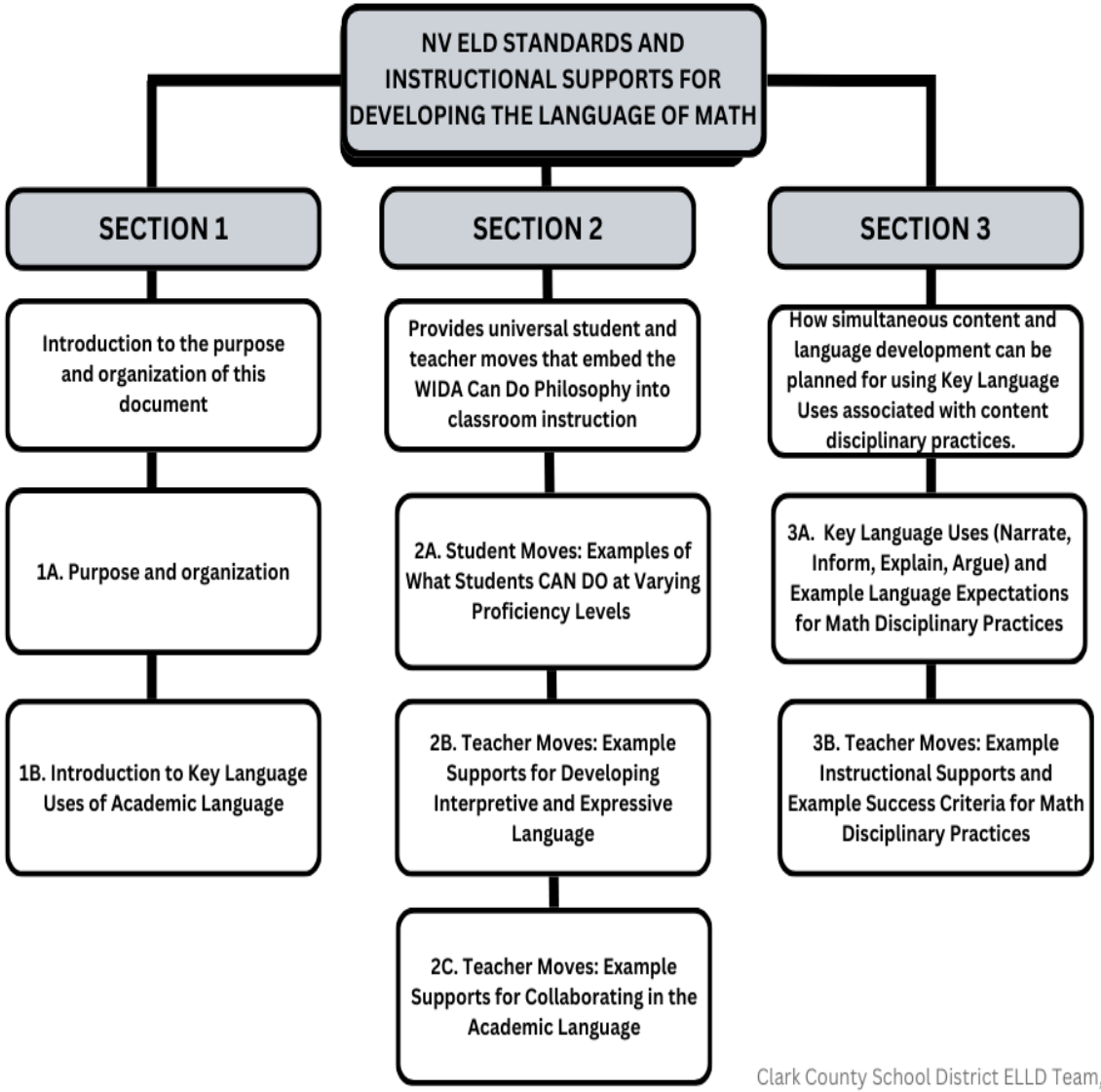
Purpose

The purpose of this document is to provide instructional resources for educators to engage their students in *English Language Development Standard 3: English language learners communicate information, ideas, and concepts necessary for academic success in the content area of mathematics.*

In 2012 the Nevada Department of Education adopted the WIDA ELD Standards now also referred to as the Nevada ELD Standards. **The purpose of the Nevada (NV) English Language Development (ELD) Standards and Instructional Supports documents** is to provide content teachers, EL educators, and school leaders with instructional tools to be used to successfully integrate the Nevada English Language Development (ELD) standards with content area instruction leading to student mastery of the Nevada Academic Content Standards (NVACs) for college/career readiness and academic English proficiency. With the use of these tools, educators will be able to make clear instructional connections between the content standards, content disciplinary practices, and the ELD standards. The mathematical practices identified in this document are based on the Nevada Academic Content Standards and the Common Core State Standards (CCSS) for Mathematics. For more information about the overview, purpose, and theoretical foundations for using the Nevada English Language Development (ELD) Standards and Instructional Supports documents see the Nevada ELD Standards and Instructional Supports Overview.

Organization

The Nevada ELD Standards and Instructional Supports for Developing the Language of Math Grades 4-5 document is organized into 3 sections:



Section 1 is the introduction to the purpose and organization of this document.

Section 1: INTRODUCTION TO NV ELD STANDARDS AND INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 4-5

A. Purpose and Organization
B. Introduction to Key Language Uses of Academic Language

Section 2 provides universal student and teacher moves that embed the WIDA Can Do Philosophy into classroom instruction.

Section 2 of the document provides descriptors illustrating what students "Can Do" with academic language at various English Language Proficiency (ELP) levels: Entering/Emerging (Level 1-2), Developing/Expanding (Level 3-4) and Bridging/Reaching (Level 5-6) specific to the grade-level cluster. The section also provides instructional practices and strategies called "Teacher Moves" which are research-based, actionable steps that all teachers can take to support the simultaneous development of academic language and content for multilingual learners at various proficiency levels of English language development. For more descriptions of the ELD Strategies identified in Sections 2 and 3, view the GO TO Strategies document from the CAL website.

Section 2: CAN DOs AND EXAMPLE INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 4-5

A. Student Moves: Examples of What Students Can Do at Varying Proficiency Levels
B. Teacher Moves: Example Supports for Developing Interpretive and Expressive Language
C. Teacher Moves: Example Supports for Collaborating in the Academic Language

Section 3 addresses how simultaneous content and language development can be planned for using Key Language Uses associated with content disciplinary practices.

Section 3 provides a table containing exemplars (taken from WIDA 2020) that model for educators the connection of prominent Key Language Uses and Language Expectations to the 4-5 Content Disciplinary Practices of Math. "Teacher Moves" relevant to the content area disciplinary practice are provided. Also included in the section are exemplars of student "Success Criteria", examples of how students will be able to demonstrate their learning of language and content at different language proficiency levels.

Section 3: INSTRUCTIONAL GUIDANCE FOR MATH DISCIPLINARY PRACTICES GRADES 4-5

- Snapshot Key Language Uses from the WIDA 2020 ELD Standards Framework

A. Key Language Uses (Inform, Explain, Argue) and Example Language Expectations for Math Disciplinary Practices
   - Prominent Key Language Uses for Math Grades 4-5
   - Language Expectations for Math Disciplinary Practices

B. Teacher Moves: Example Instructional Supports and Example Success Criteria for Math Disciplinary Practices
   - Practice 1: Make sense of problems and persevere in solving them
   - Practice 2: Reason abstractly and quantitatively
   - Practice 3: Construct viable arguments and critique the reasoning of others
   - Practice 4: Model with mathematics
   - Practice 5: Use appropriate tools strategically
   - Practice 6: Attend to precision
   - Practice 7: Look for and make use of structure
   - Practice 8: Look for and express regularity in repeated reasoning

1B. Introduction to Key Language Uses of Academic Language

The WIDA ELD Standards Framework, 2020 Edition maintains the five original ELD standards of the 2012 document and, importantly, operationalizes the WIDA Big Ideas that language development and content learning are to be integrated into assets-based instruction that takes place in the context of a learning environment responsive to cultural and linguistic diversity. These Big Ideas are referred to as the WIDA Can Do Philosophy. Instruction is facilitated by the inclusion of the following components of language which form a common framework within which multilingual students understand academic language: 1) **Interpretive** (listening, reading, viewing) and **Expressive** (speaking, writing, representing) language, 2) **Key Language Uses**, prominent language uses across content area disciplines, 3) **Language Expectations**, goals for content-driven language learning, and 4) **Language Features**, a continuum of language development indicators.

Key Language Uses (KLUs) of academic language in the core content areas were identified in WIDA 2020 based on reviews of literature and a language analysis of college and career readiness standards. Throughout this document the KLUs provide a focus for instructional supports. See table below for a description of the KLUs.

KEY LANGUAGE USES	KEY LANGUAGE USES DESCRIPTION
NARRATE	Highlights language to convey real or imaginary experiences through stories and histories. Example tasks for the Key Use of **Narrate** include telling or summarizing stories, sharing past experiences, recounting an incident, or to chronicle a report.
INFORM	Highlights language to provide factual information, to tell, give knowledge, apprise, notify, to make aware of ideas, actions, or phenomena. Example tasks for the Key Use of **Inform** include defining, describing, comparing, contrasting, categorizing, or classifying concepts, ideas, or phenomena.
EXPLAIN	Highlights language to give an account for how things work or why things happen to clarify ideas, actions, or phenomena. Example tasks for the Key Use of **Explain** include interpreting, elaborating, illustrating, simplifying ideas, actions, or phenomena.
ARGUE	Highlights language to justify claims using evidence and reasoning, constructing arguments with evidence, or stating preferences or opinions. Example tasks for the Key Use of **Argue** include advancing or defending an idea or solution, changing the audience's point of view, or evaluating an issue.

SECTION 2: CAN DOs AND EXAMPLE INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 4-5

Two types of communication modes are incorporated into the WIDA English Language Development Standards Framework: interpretive mode (listening, reading, and viewing) and expressive mode (speaking, writing, and representing). Consistent with the WIDA Can Do Descriptors, the table below provides examples of the academic tasks multilingual learners can successfully carry out in each communication mode. These Student Moves were based on the WIDA K-12 Can Do Descriptors, Key Uses Edition.

2A. Student Moves: Examples of What Students Can Do at Varying Proficiency Levels

With appropriate instructional supports, multilingual learners can…

Communication Modes	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Interpretive: Listening, Reading, & Viewing	● listen to oral commands to complete mathematical tasks to indicate position or location. ● listen to direct instruction that includes simple sentences and repetition of academic language to make meaning of academic language and understand mathematical concepts. ● make meaning of pictures, models, phrases, or short sentences to understand mathematical concepts. ● match words or phrases provided orally and in a word bank to pictures or objects representing mathematical concepts. ● follow oral directions to demonstrate recurring steps in mathematical processes and problem solving.	● make meaning of academic language from direct instruction or written information supported by visuals, graphics, or mentor text. ● follow complex tasks and directions with peer support in pairs or small groups. ● sequence written steps in mathematical processes. ● interpret content-related cause and effect relationships during direct instruction.	● apply understanding of technical language related to mathematical concepts to grade-level oral or written problem-solving scenarios. ● from grade-level text, make connections between real-world problem-solving situations and mathematical concepts. ● interpret and attend to the language of content-related topics used during direct instruction and by peers.

2A. Student Moves: Examples of What Students Can Do at Varying Proficiency Levels (continued)

With appropriate instructional supports, multilingual learners can…

Communication Modes	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Expressive: Speaking, Writing, & Representing	● state key words or phrases found in figures or processes in a sequential order from illustrated examples and verbal models. ● use general math vocabulary in oral or written phrases or simple sentences using visual or graphic support. ● produce short-answer oral or written responses to content-related questions using word/phrase banks.	● present orally in small groups detailed content-related information that has been rehearsed. ● connect the sequential, cyclical, or causal relationships of content-related concepts with the support of visuals or graphics. ● explain mathematical processes and relationships using a variety of transitional words, phrases and clauses with the support of sentence frames and/or mentor text. ● give reasons for why or how something works using diagrams, charts, or images. ● respond in written form to content-related "how" or "why" questions with the support of sentence frames.	● explain different ways of problem-solving mathematical scenarios from grade-level text using precise technical vocabulary. ● apply descriptions of mathematical concepts to real-world situations. ● explain how content-related variables contribute to outcomes. ● elaborate by adding precision and details using technical language to explain content-related sequence or cause and effect relationships. ● maintain a formal register. ● summarize content-related information. ● describe relationships of the components of a mathematical process or concept.

2B. Teacher Moves: Example Supports for Developing Interpretive and Expressive Language

What general supports can teachers provide to students at **different language proficiency levels** to interpret or express **academic language**?

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
INSTRUCTIONAL ● Build background in key language and concepts. ● Give two-step contextualized directions. ● Restate/rephrase and use Patterned Oral Language routines. ● Use Wait Time before and after questions. ● Preview the text content with experiences. ● Provide explicit instruction and practice in key social and instructional vocabulary utilizing plenty of visuals such as pictures, real objects, or gestures to convey meaning. ***LANGUAGE*** ● Provide explicit instruction and practice in key social and instructional vocabulary. ● Model orally the academic language and specific vocabulary. ● Provide explicit instruction and practice for students to construct the language using sentence starters. ● Label visuals and objects with target vocabulary. ● Introduce cognates to aid comprehension. ● Provide opportunities for translanguaging and multilingual supports during the task. ***INTERACTIVE*** ● Pair students to read one text together. ● Use Shared Reading	***INSTRUCTIONAL*** ● Confirm prior knowledge in key language and concepts. ● Build background in key language and concepts using contextualized vocabulary, collaborative learning, visuals that introduce more complex texts with accompanying audio. ● Check comprehension of all students frequently. ● Use Wait Time. ● Require and scaffold full sentence responses by asking open ended questions. ● Use Varied Presentation Formats such as role plays. ● Scaffold oral reports with note cards and provide time for prior practice. ● Provide opportunities for oral reporting for summarizing group work. ● Thoroughly model all lesson expectations. ***LANGUAGE*** ● Model orally the academic language and specific vocabulary. ● Provide explicit instruction and practice for students to construct the language using sentence and discourse starters. ● Provide opportunities for translanguaging and multilingual supports during the task. ***INTERACTIVE*** ● Pair students to read one text together. ● Use Jigsaw Reading to scaffold independent	***INSTRUCTIONAL*** ● Confirm prior knowledge in key language and concepts. ● Build background in key language and concepts focusing on academic vocabulary and idiomatic expressions. Use content specific texts to build subject knowledge. ***LANGUAGE*** ● Use complex sentence and discourse starters. ● Extend content vocabulary with multiple examples and non-examples. ● Provide opportunities for translanguaging during the task. ***INTERACTIVE*** ● Use Reciprocal Teaching to scaffold independent reading. ● Provide tasks that encourage discourse and then facilitate and support discourse between and among students. ***GRAPHIC*** ● Ask students to analyze text structure and select an appropriate Graphic Organizer for summarizing. ● Provide a graphic organizer system (e.g. Learning Log/Interactive Notebook) for students to regularly record and process key academic vocabulary and content learning throughout an instructional unit.

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
GRAPHIC ● Use K-W-L charts before reading. ● Provide a list of important concepts on a graphic organizer. ***SENSORY/MEDIA*** ● Use physical gestures to accompany oral directives. ● Provide explicit instruction and practice for students to construct the language using visual aids from the text. ● Preview the text content with pictures, demos, charts. ● Provide a content vocabulary Word Bank with non-linguistic representations. ● Preview text with a Picture Walk.	reading. ***GRAPHIC*** ● Use K-W-L charts before reading. ● Provide a list of important concepts on a graphic organizer. ● Provide a graphic organizer system for students to regularly record and process key academic and content-specific vocabulary. ***SENSORY/MEDIA*** ● Provide a content vocabulary Word Bank with non-linguistic representations. ● Preview the text content with pictures, demos, charts, or experiences. ● Provide explicit instruction and practice for students to construct the language using visual aids from the text.	***SENSORY/MEDIA*** ● Use Video Observation Guides.

2C. Teacher Moves: Example Supports for Collaborating in the Academic Language

How can teachers provide ongoing opportunities for students to collaborate using academic language? Below are some examples of universal strategies for engaging students in collaborative discourse practices.

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Prior to reading, writing, and discussion, teacher prepares collaborative discourse structures for students to… ● engage in pair work (in L1 if possible) to prepare questions for discussion using graphic, interactive, and/or language supports. ● participate in pair/triad/small group discussions using graphic, interactive, and/or language supports (including L1 as appropriate). ● use Clock Buddies. ● use Numbered Heads Together. ● use Think-Pair-Share Squared. ● use key sentence frames for pair interactions. ● participate with Strategic Partners at a higher English proficiency level and/or with a same primary language peer(s). ● use a Roving Chart in small group work. ● use Interactive Journals. ● use Think-Write-Pair-Share. ● use Cloze sentences with a Word Bank. ● use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups.	**Prior to reading, writing, and discussion**, teacher prepares collaborative discourse structures for students to… ● engage pair work to prepare questions for discussion using graphic, interactive, and/or language supports as needed. ● contribute to pair/triad/small group discussions by supporting with examples, asking clarifying questions, and using graphic, interactive, and/or language supports as needed. ● participate with Strategic Partners at a higher English proficiency level and/or with a same primary language peer(s) ● use graphic organizers or notes to scaffold oral retelling. ● use Think-Pair-Share. ● repeat and expand their responses and other students' responses in a Collaborative Dialogue. ● use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups.	**Prior to reading, writing, and discussion**, teacher prepares collaborative discourse structures for students to… ● engage in structured pair work to process. ● inform and formulate thinking, then prepare questions for discussion. ● contribute to pair/triad/small group discussions to share individual ideas and compare with other ideas in the group, using graphic, interactive, and/or language supports as needed. ● engage with whole/large group discussions by generating original questions and/or building on the ideas of others using graphic, interactive, and/or language supports as needed. ● use oral reporting for summarizing group work. ● use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups. ● build upon their own ideas and those of others.

SECTION 3: INSTRUCTIONAL GUIDANCE FOR MATH DISCIPLINARY PRACTICES GRADES 4-5

Snapshot of Key Language Uses from the WIDA 2020 ELD Standards Framework

Key Language Uses—Narrate, Inform, Explain, and Argue—are present across all grade levels and disciplines. Determining Key Language Use is helpful in planning instructional outcomes and supports. The Snapshots table below provides descriptors of some ways students engage in each Key Language Use throughout grades 4-5.

Snapshots of Key Language Uses in Grades 4-5	
Narrate	• Add details about characters and settings • Use dialogue to provide insight into characters' motives and personalities • Create images in the reader's mind through descriptive language • Interpret and construct narratives in a variety of contexts and purposes, including fictional or historical narratives about significant individuals or events
Inform	• Provide objective general descriptions of entities and concepts of observable and unobservable phenomena • Share factual knowledge by moving from concrete and familiar topics to unfamiliar topics • Construct generalizations of concepts beyond experiences (e.g., compare earthquakes and cyclones)
Explain	• Identify consequences of actions or events • Give account for the underlying causes of how something works or why something happens • Begin to show underlying causes of more abstract phenomena
Argue	• Substantiate claims with evidence and reasoning • Use evidence from texts or data to support claims • Consider and engage with other voices, possibilities, and perspectives • Argue about topics that go beyond students' immediate contexts to topics outside their realm of personal experience

3A. Key Language Uses (Inform, Explain, Argue) and Example Language Expectations for Math Disciplinary Practices

The Math Key Language Uses in the graphic below are marked with a filled-in circle (●) in the boxes. The half-filled circle and the open circle indicate lesser degrees of prominence of each Key Language Use.

Distribution of Math Key Language Uses in Grades 4-5				
WIDA ELD STANDARD	Narrate	Inform	Explain	Argue
1. Language for Mathematics	○	◐	●	●

● Most Prominent ◐ Prominent ○ Present

Adapted from the WIDA 2020 Standards Framework pp. 290-292

The table below lists the 8 Mathematical Practices from the Nevada Academic Content Standards and provides example Language Expectations for each Prominent and Most Prominent Key Language Use (KLU) of Academic Language associated with WIDA ELD Standard 3 Language for Mathematics. (For a more detailed listing of grade-level Language Expectations to support mastery of content area standards see **WIDA English Language Development Standards Framework, 2020 Edition Kindergarten - Grade 12 (wisc.edu)** pp. 118-121.)

Math Practices	KEY LANGUAGE USES		
	Inform	**Explain**	**Argue**
1. Make sense of problems and persevere in solving them.	Multilingual learners make sense of problems and persevere in solving them by describing and summarizing their implementation of strategies using mathematical terms and phrases to describe concept, process, or purpose, using connectors to recount steps and express causality (*first, next, then, because, so*).	Multilingual learners make sense of problems and persevere in solving them by constructing mathematical explanations that introduce concept or entity using mathematical terms and phrases to describe concept, process, or purpose using connectors to recount steps and sequence *(first, next, then, because, so).*	See Math Practice 3. Construct viable arguments and critique the reasoning of others.
2. Reason abstractly and quantitatively.	Multilingual learners reason abstractly and quantitatively by restating the mathematical reasoning of others using mathematical terms including technical nouns (*place value, commutative property*) and connectors to indicate order and express causality (*first, next, then, because, so*).	Multilingual learners reason abstractly and quantitatively by restating mathematical concepts using abstract, generalized noun groups to add precision (*operation, associative property, area formula*) and connectors to recount steps and express causality (*first, next, then, because, so*).	See Math Practice 3. Construct viable arguments and critique the reasoning of others.

Math Practices	KEY LANGUAGE USES		
	Inform	**Explain**	**Argue**
3. Construct viable arguments and critique the reasoning of others.	Multilingual learners construct viable arguments and critique the reasoning of others by conveying clear and precise arguments using mathematical terms including technical nouns (*place value, commutative property*), and past tense to quote (*said, thought, explained*) and recount steps (*added, divided*).	Multilingual learners construct viable arguments and critique the reasoning of others by explaining their mathematical thinking using technical language associated with visuals and manipulatives to support approach and connectors to recount steps (*first, next, then, because, so*).	Multilingual learners construct viable arguments and critique the reasoning of others by justifying, persuading, and rationalizing their use of strategies and communicate them to others providing evidence using visuals and models to demonstrate thinking and ask for clarification (*Could you explain…, Would you show…*).
4. Model with mathematics.	Multilingual learners construct a mathematical model using visuals, charts, diagrams, manipulatives, technical language and connectors (*first, second because, so that, when,*) to order steps and show causal relationships.	Multilingual learners' model with mathematics by explaining the thinking associated with the model using technical language to support approach and connectors to recount steps (*first, next, then, because, so*).	See Math Practice 3. Construct viable arguments and critique the reasoning of others.
5. Use appropriate tools strategically.	Multilingual learners select and use appropriate tools by strategically aligning to the mathematical task and describing their selection rationale using technical language associated with visuals, manipulatives, and past tense verbs to recount steps (*added, divided, found*).	Multilingual learners explain their strategic use of tools using precise technical language (*operation, associative property, area formula*) associated with visuals and manipulatives and past tense verbs to recount steps (*added, divided, found*).	See Math Practice 3. Construct viable arguments and critique the reasoning of others.
6. Attend to precision.	Multilingual learners use precise mathematical language to define, classify, describe, or compare/contrast a mathematical concept, reasoning, or process.	Multilingual learners elaborate by using precise mathematical vocabulary and math specific discourse supported by adding multiple adjectives to nouns (*three equal sides*) to define, describe, or classify.	See Math Practice 3. Construct viable arguments and critique the reasoning of others.
7. Look for and make use of structure.	Multilingual learners identify and describe mathematical structures using mathematical terms including technical language associated with manipulatives and visuals	Multilingual learners explain their use of mathematical structure using technical language associated with visuals and manipulatives to support approach and	See Math Practice 3. Construct viable arguments and critique the reasoning of others.

Math Practices	KEY LANGUAGE USES		
	Inform	**Explain**	**Argue**
	and adverbial clauses to add precision of quality, quantity and frequency (*Triangles always have 3 sides.).*	connectors to recount steps and express causality (*first, next, then, because, so*).	
8. Look for and express regularity in repeated reasoning.	Multilingual learners identify and describe repeated reasoning and evaluate the reasonableness of intermediate results using conditional clauses (*if, then*) to demonstrate relationships and causal connectors (*because, so*) to link ideas and provide reasoning.	Multilingual learners look for and express regularity in repeated reasoning by explaining their evaluation of intermediate results using past-tense doing and thinking verbs (*calculated, remembered, thought, figured out*) to recount steps and technical language associated with visuals and manipulatives.	See Math Practice 3. Construct viable arguments and critique the reasoning of others.

3B. Teacher Moves: Example Instructional Supports and Example Success Criteria for Math Disciplinary Practices

Mathematical Practices 1-8

Teacher Moves: What supports can teachers provide students at different proficiency levels **to use language to interpret or make meaning** of the content? Examples:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
INSTRUCTIONAL ● Provide scaffolded tasks for students to draw a picture of their solution and to label it. ● Extend student language by modeling at an appropriately scaffolded level the use of language with content. ● Foster a growth mindset by praising effort, persistence, and progress. ***LANGUAGE*** ● Provide adequate time for students to practice the language and content with opportunity to receive specific feedback. ● Provide simple sentence frames for students to practice extended discourse in the content area. **Mathematical Practice (MP) Examples:** (MP1) I used _____ to solve the problem. (MP2) The words I can use to represent this problem are _____. (MP3) (point) Can you please repeat that? (MP4) I used the _____ model to solve the problem. (MP5) The best tool to use is _____ because _____.	***INSTRUCTIONAL*** ● Provide learning tasks in which students can use illustrations or numbers to explain their understanding. ● Extend student language by modeling at an appropriately scaffolded level the use of language with content. ● Encourage students to try different strategies if their first approach doesn't work. ● Use the gradual release of responsibility model to transition from guided to independent problem-solving. ***LANGUAGE*** ● Provide adequate time for students to practice the language and content with opportunity to receive specific feedback. ● Provide students with sentence frames from a leveled list of scaffolding statements. **Mathematical Practice (MP) Examples:** (MP1) I solved the problem by _____. I first _____. Then I _____. (MP2) I struggled with _____, and I solved it by _____. (MP3) I used the same/different strategy as you. I'd like to add _____. (MP4) I can prove my answer was correct	***INSTRUCTIONAL*** ● Engage students in comparing and evaluating different tools/strategies for solving specific types of problems. ● Use the gradual release of responsibility model to transition from guided to independent problem-solving. ***LANGUAGE*** ● Provide adequate time for students to practice the language and content with opportunity to receive specific feedback. ● Provide students with sentence frames from a leveled list of scaffolding statements. **Mathematical Practice (MP) Examples:** (MP1) Information that I need is _____ because _____. (MP2) Could you say more about that? I agree / disagree with _____'s choice of _____ tool, but I chose _____ also/instead because of _____. (MP3) I'm not sure I understood you when you said _____. Could you say more about that? (MP4) The problem(s) I encountered using this model were _____. I solved them by

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
(MP6) _____ (math term) means _____ (from word bank). (MP7) These are similar/different because they _____. (MP8) I see a pattern. The pattern is _____. ***INTERACTIVE*** ● Have students label the parts of a mathematical expression using a word bank of academic vocabulary associated with the expression. Have students practice stating the mathematical expression with a predetermined learning partner. ● Provide simple sentence frames for students to practice extended discourse in the content area with a predetermined learning partner. ***GRAPHIC*** ● Students record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. ***SENSORY MEDIA*** ● Scaffold students' use of math manipulatives and visuals to model and explain abstract concepts and math problems with L1 support. ● Introduce students to various math tools (e.g., rulers, calculators, number lines) and model their use.	using the _____ model because _____. (MP5) I used the same/different tool as you. My reason is _____. (MP6) I used the label _____ because _____. (MP7) The pattern/rule is _____. I know this because _____. (MP8) The repeated patterns I found are _____. ***INTERACTIVE*** ● Model consistently a predetermined dialogue structure for students to state and clarify their reasoning to a partner or small group and listen to the ideas of others to agree or disagree with reasons to ensure the participation of all students. ● Provide sentence frames for students to practice extended discourse in the content area with a predetermined learning partner or small group. ● Provide time for students to write down their ideas and rehearse before small group tasks. ***GRAPHIC*** ● Use graphic organizers like T-charts and Venn diagrams to help students organize their abstract reasoning. ● Encourage students to represent problems visually before moving to abstract solutions. ***SENSORY MEDIA*** ● Scaffold students' use of math manipulatives to model and explain math problems. ● Teach students how to use digital tools effectively and responsibly.	_____. (MP5) I agree / disagree with _____s choice of _____ tool, but I chose _____ also/instead because of _____. (MP6) I used the mathematical term _____ to explain _____. (MP7) There are several major differences between the patterns/data sets. The most notable is because _____. (MP8) Through my work I was able to identify _____ (repeated patterns, etc.). ***INTERACTIVE*** ● Provide learning tasks for students to state and clarify their reasoning to a partner or small group, listen to the ideas of others, and agree or disagree with justifications. ***GRAPHIC*** ● Use graphic organizers like T-charts and Venn diagrams to help students organize their abstract reasoning. ● Encourage students to represent problems visually before moving to abstract solutions. ***SENSORY MEDIA*** ● Provide math manipulatives and expect students to model math problems. ● Introduce advanced tools and techniques, such as graphing calculators and data simulations. Encourage students to explore how these tools can be used to solve complex problems.

3B. Teacher Moves: Example Instructional Supports and Example Success Criteria for Math Disciplinary Practices (continued)

Mathematical Practices 1-8

Success Criteria: How will students be able to **communicate or demonstrate** their learning of language and content at **different language proficiency levels**? Examples:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
With prompting and supports, multilingual learners will… Key Language Use - Explain ● construct viable arguments and critique the reasoning of others by explaining their mathematical thinking using technical language associated with visuals and manipulatives to support approach and causal connectors to express reasoning (*We took these steps to solve the problem because/so…*) in order to explain a preferred student strategy with the aid of visual and L1 supports, word banks/anchor charts and simple sentence frames.	**With appropriate supports, multilingual learners will…** Key Language Use - Explain ● construct viable arguments and critique the reasoning of others by explaining their mathematical thinking using technical language associated with visuals and manipulatives to support approach and causal connectors to express reasoning (*We took these steps to solve the problem because/so…*) in order to explain and justify a preferred student strategy with the aid of visual supports, word banks/anchor charts and simple sentence frames.	**With appropriate supports, multilingual learners will…** Key Language Use - Explain ● construct viable arguments and critique the reasoning of others by explaining their mathematical thinking using technical language associated with visuals and manipulatives to support approach and causal connectors to express reasoning (*We took these steps to solve the problem because/so…*) in order to explain and justify a preferred student strategy with the aid of language frames and other supports as needed.