NV ELD STANDARDS AND INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 9-12

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SECTION 1: INTRODUCTION TO NV ELD STANDARDS AND INSTRUCTIONAL SUPPORTS FOR DEVELOPING THE LANGUAGE OF MATH GRADES 9-12

1A. Purpose and Organization

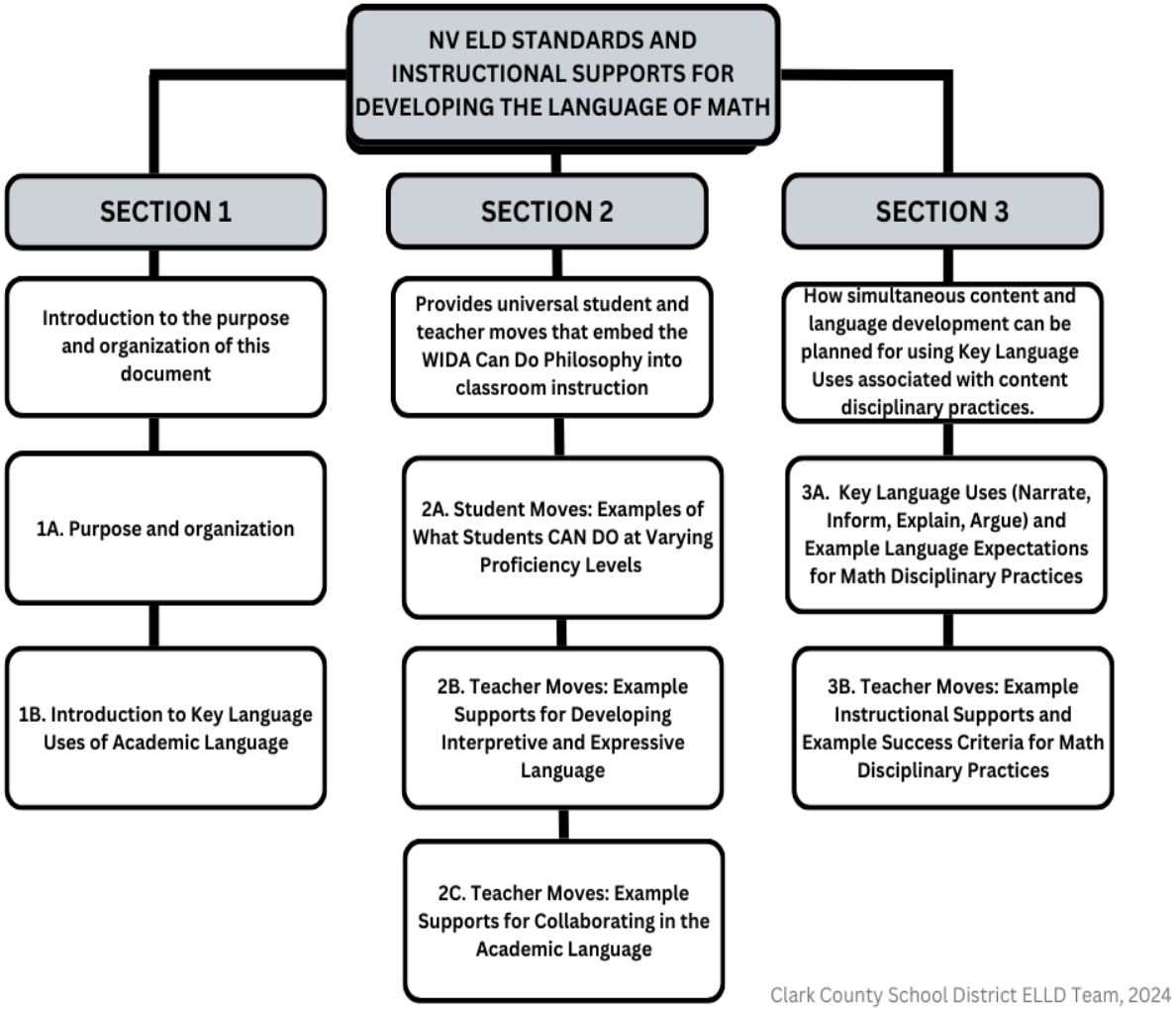
Purpose

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 9-12 document is organized into 3 sections:



Clark County School District ELLD Team, 2024

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 9-12

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 9-12

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 9-12 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 9-12

- 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 9-12
   - 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
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   - 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 9-12

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. ● make meaning of direct instruction that includes simple sentences and repetition of academic language to understand mathematical concepts. ● make meaning of pictures, models, phrases, or short sentences to understand mathematical concepts. ● match words or phrases provided in a word bank to mathematical concepts.	● make meaning of academic language from oral discourse, visual supports, or mentor text. ● compare/contrast mathematical concepts from figures, oral scenarios, visually supported text using some technical language. ● match technical language associated with mathematical concepts, models, or techniques to visually supported text. ● connect the sequential, cyclical, or causal relationships of content-related concepts with the support of visuals or graphics.	● interpret and attend to the language of content-related topics used during direct instruction and by peers. ● analyze techniques, models or equations from oral reading of grade-level material. ● apply technical language related to mathematical concepts to grade-level oral problem-solving scenarios. ● from grade-level text, make connections between real-world problem-solving situations and mathematical concepts. ● evaluate the soundness of problem-solving strategies presented 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	● name variables from illustrations and notation. ● label elements of equations or formulas from word/phrase banks and models. ● follow oral directions to demonstrate recurring steps in mathematical processes and problem solving.	● present orally in small groups detailed content-related information that has been rehearsed. ● 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.	● analyze and explain functions of one variable in relation to another using supports such as graphic organizers. ● summarize procedures for solving problems involving formulas and equations using discourse frames and mentor text models. ● explain mathematical solutions using technical language to explain content-related processes that support claims. ● present organized ideas and information on content topics including the use of graphics and multimedia.

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 ● Confirm students' prior knowledge of content topics. ● Build background in key language and concepts using visual aids, simplified language, gestures and body language and interactive activities, e.g. (hands-on, role playing, games) and L1 support. ● 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. ● Give two-step contextualized directions. ● Restate/rephrase and use patterned oral language routines. ● Annotate text with non-linguistic representations to scaffold comprehension. ● Check comprehension of all students frequently. ● Use Wait Time ***LANGUAGE*** ● Model orally the academic language and specific vocabulary. ● Label visuals and objects with target vocabulary. ● Introduce cognates to aid comprehension. ● Provide opportunities for translanguaging and multilingual support during the task.	***INSTRUCTIONAL*** ● Confirm students' prior knowledge of content topics. ● Build background in key language and concepts using contextualized vocabulary, collaborative learning, visual that introduce more complex texts with accompanying audio. ● Provide explicit instruction and practice in key social and instructional vocabulary. ● Check comprehension of all students frequently. ● Use Wait Time. ● Use varied presentation formats such as role plays. ● Model processes with Think Alouds. ● Scaffold oral reporting and oral reports with student use of note cards and provide time for prior practice with feedback. ***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. ● Encourage full sentence responses by asking open ended questions with response sentence stem provided. ❖ Example: What additional strategies could be used to find the solution to this problem? An additional strategy that could be used is _____.	***INSTRUCTIONAL*** ● Confirm students' prior knowledge of content topics. ● Build background in key language and concepts focusing on academic vocabulary and idiomatic expressions. Use content specific texts to build subject knowledge. ● Use Reciprocal Teaching to scaffold independent reading. ***LANGUAGE*** ● Use complex sentence and discourse starters. ● Extend content vocabulary with multiple examples and non-examples. ● Provide opportunities for translanguaging during the task. ***INTERACTIVE*** ● Structure writing tasks to include opportunity for peer feedback. ***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)
INTERACTIVE ● Provide explicit instruction and practice using Jigsaw Reading to scaffold independent reading. ● Pair students to read one text together. ● Use Shared Reading ***GRAPHIC*** ● Use K-W-L charts before reading. ● Provide a list of important concepts on a graphic organizer. ***SENSORY/MEDIA*** ● Provide explicit instruction and practice for students to construct the language using visual aids. ● Use physical gestures to accompany directions. ● Preview the text content with pictures, demos, charts, or experiences. ● Preview text with a Picture Walk. ● Provide a vocabulary Word Bank with non-linguistic representations. ● Annotate text with non-linguistic representations to scaffold comprehension.	● Require and support the use of academic language with anchor charts and word banks for students to reference. ● Provide opportunities for translanguaging and multilingual support during the task. ***INTERACTIVE*** ● Provide explicit instruction and practice using Jigsaw Reading to scaffold independent reading. ● Pair students to read one text together. ● Use Shared Reading ***GRAPHIC*** ● Provide a graphic organizer system for students to regularly record and process key academic and content-specific vocabulary. ● Provide a list of important concepts on a graphic organizer. ● Use K-W-L charts before reading. ***SENSORY/MEDIA*** ● Preview the text content with pictures, demos, charts, or experiences.	***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, the teacher prepares collaborative discourse structures for students to… ● participate in pair/triad/small group discussions using graphic, interactive, and/or language supports (including L1 as appropriate). ● use Cloze sentences with a Word Bank. ● pair students with strategic partners at a higher English proficiency level and/or with the same primary language peer(s). ● use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups. ● use Clock Buddies. ● use Numbered Heads Together. ● use Think-Pair-Share Squared. ● use key sentence frames for pair interactions. ● use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; collaborative group roles with sentence frames. ● build upon their own ideas and those of others using shared L1.	**Prior to reading, writing, and discussion,** the teacher prepares collaborative discourse structures for students to… ● engage in 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. ● engage with whole/large group discussions by connecting ideas with supporting details, generating original questions, and using graphic, interactive, and/or language supports as needed. ● 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. ● build upon their own ideas and those of others.	**Prior to reading, writing, and discussion,** the teacher prepares collaborative discourse structures for students to… ● engage in structured pair work to process and generate ideas. ● 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 9-12

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 9-12.

Snapshots of Key Language Uses in Grades 9 12	
Narrate	• Interpret and construct narratives with complex plots, themes, and developments • Identify perspectives in historical narratives and discern authors' intent in presenting history in a particular light • Develop characters in their own stories and connect themes to issues in past and present
Inform	• Manage information about entities according to their composition, taxonomies, and classifications • Identify and describe various relationships among ideas and information • Use available new information to construct and revise research reports that incorporate multiple sources of information
Explain	• Analyze and evaluate data in explanations • Identify multilayered causal or consequential relationships in social or scientific phenomena • Apply reasoning or theory to link evidence to the claims in explanations • Construct and revise explanations based on evidence from multiple sources
Argue	• Construct claims that offer objective stance using less polarized language so that claims appear more "balanced" • Anticipate what evidence audiences will need and adjust evidence and reasoning accordingly • Adjust arguments based on new data from experiments • Discern what types of arguments are needed, when they are needed, and what purposes they meet in different content areas

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 9-12				
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. 190-193.)

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 strategies using mathematical terms and phrases to describe concept, process, or purpose (*the sum of the angles of a triangle is 180*).	Multilingual learners make sense of problems and persevere in solving them by constructing mathematical explanations that explain a mathematical problem and its solution using connectors to recount steps and sequence *(first, next, then, because, so),* and causal connectors to express reasoning (*We took these steps to solve problems with ratios 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 using mathematical terms and phrases to describe concept, process, or purpose (*the sum of the angles of a triangle is 180*).	Multilingual learners reason abstractly and quantitatively by 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 sharing solutions with others using first person (*I, We*) to describe approach and third person to describe approach with neutral stance of authority (*The Group 1 results using the estimation strategy were correct in more instances than the Group 2 results.*) to test their rule against several different cases.	Multilingual learners construct viable arguments and critique the reasoning of others by explaining their mathematical thinking using technical language associated with visual data displays (drawings, software, demonstrations, tables, charts) to support approach and causal connectors to express reasoning (*We took these steps to solve the problem because/so…*).	Multilingual learners construct viable arguments and critique the reasoning of others by: ● justifying and persuading others in their use of strategies using the resources provided (areas, perimeters, and coordinates) to demonstrate principles along with conditional structures (if/then, when) to demonstrate rules used to draw conclusions. ● evaluating and critiquing others' arguments using questions (what, how, why) and requests (could, would) to request information, clarification and/or procedure (Could you show me how you got that answer? Why did you do… instead of…?).
4. Model with mathematics.	Multilingual learners' model with mathematics to share solutions with others by describing the application of the model in problem-solving using first person *(I/we*) and sequential language (first, next, then).	Multilingual learners' model with mathematics to explain problem- solving strategies by referring to visual data displays with observational language (*notice, it appears, it looks like*).	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 aligned to the mathematical task and describe their selection rationale using technical language associated with visual data displays (drawings, software, demonstrations, tables, charts) and abstract generalized or multi-meaning	Multilingual learners explain their strategic use of tools using precise technical language (*theorems, transformations, plane, translation, reflection*) and causal connectors to establish relationship, solution, validity (*the relationship is not a function because a function is…*).	See Math Practice 3. Construct viable arguments and critique the reasoning of others.

Math Practices	KEY LANGUAGE USES		
	Inform	**Explain**	**Argue**
	noun groups (*theorems, transformations, randomized variation, proportional relationships*) to provide precision to mathematical descriptions.		
6. Attend to precision.	Multilingual learners attend to precision to describe and summarize concept, process, or purpose using mathematically correct language (terms, phrases) and symbols.	Multilingual learners elaborate by using precise mathematical vocabulary and math specific discourse supported by causal connectors (*so, because, therefore*) and compare/contrast signals (*both, same, different*) to differentiate results, approaches, attributes of mathematical principles or problem-solving outcomes.	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 technical language associated with visual data and displays (drawings, software, demonstrations, tables, charts) and timeless present verbs to present generalizable truths (*The hypotenuse is opposite the right angle.*).	Multilingual learners look for and make use of mathematical structure to explain their problem-solving strategy using models, drawings, graphs, and technical language to demonstrate principles and express equations in standard form for procedural fluency (*f of one is equal to negative six; negative six is equal to a plus b*).	See Math Practice 3. Construct viable arguments and critique the reasoning of others.
8. Look for and express regularity in repeated reasoning.	Multilingual learners identify and describe repeated reasoning of intermediate results by sharing solutions with others using first person (*I, We*) and declarative statements to present generalizable processes (*We don't have outliers in our data. We can use a dot plot or histogram.*).	Multilingual learners look for and express regularity in repeated reasoning by evaluating the reasonableness of intermediate results using past-tense doing verbs and thinking verbs (*calculated, remembered, thought, figured out, took these steps*) to recount steps and technical language associated with visual data displays (drawings, software, demonstrations, tables, charts) to clarify an approach and/or solution with reference to generalizations, patterns.	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. ● Use mentor texts (student or teacher generated) to draft text-based discourse and receive feedback in preparation for lesson/unit assessment expectations. ***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?	***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. ● Use mentor texts (student or teacher generated) to draft text-based discourse and receive feedback in preparation for lesson/unit assessment expectations. ***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 _____.	***INSTRUCTIONAL*** ● Encourage students to keep interactive math journals where they write about their problem-solving process. Use these journals to reflect on strategies and vocabulary. ***LANGUAGE*** ● 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 _____. (MP5) I agree / disagree with _____'s choice of _____ tool, but I chose _____also/instead because of _____. (MP6) I used the mathematical term _____to explain _____.

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
(MP4) I used the _____ model to solve the problem. (MP5) The best tool to use is _____ because _____. (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*** ● Provide graphic organizers with non-linguistic representation of math vocabulary and concepts. ***SENSORY/MEDIA*** ● Scaffold students' use of math manipulatives to model and explain math problems with L1 support.	(MP4) I can prove my answer was correct 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. ***GRAPHIC*** ● Provide graphic organizers with non-linguistic representation of math vocabulary and concepts. ***SENSORY/ MEDIA*** ● Use Video Observation Guides. ● Scaffold students' use of math manipulatives to model and explain math problems.	(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 students opportunity to utilize dialogue structures in order to state and clarify their reasoning to a partner or small group, listen to the reasoning of others, and state rationale for agreement or disagreement ***GRAPHIC*** ● Provide graphic organizers for students to provide examples and non-examples of academic vocabulary and concepts. ***SENSORY/ MEDIA*** ● Use Video Observation Guides. ● Provide math manipulatives and expect students to model math 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 (drawings, software, demonstrations, tables, charts) 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 (drawings, software, demonstrations, tables, charts) 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 complex 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 (drawings, software, demonstrations, tables, charts) 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.