



ELD STANDARDS FRAMEWORK FOR DEVELOPING THE LANGUAGE OF MATH GRADES K-1

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SECTION 1: ELD STANDARDS FRAMEWORK FOR DEVELOPING THE LANGUAGE OF MATH GRADES K-1 - OVERVIEW

Section 1: Purpose

The **purpose of the English Language Development (ELD) Standards Framework and Instructional Guidance documents** is to provide clarity in the implementation and integration of the Nevada ELD Standards with Nevada Academic Content Standards and instruction. In addition, they support the application of the Nevada Educator Performance Framework (NEPF) Standards of best practices for English learners and other diverse student populations.

These Nevada ELD Standards documents specify the connection between the WIDA ELD Standards and the content disciplinary practices of mathematics. The practices identified in this document were created within the Common Core State Standards (CCSS) for Mathematics. The ELD Standards Instructional Guidance documents conceptualize the Nevada ELD Standards as intertwined with learning the Nevada Academic Content Standards and College and Career Readiness Standards.

Section 1: [Overview Document](#)

Section 2: [Framework for Developing the Language of Math](#)

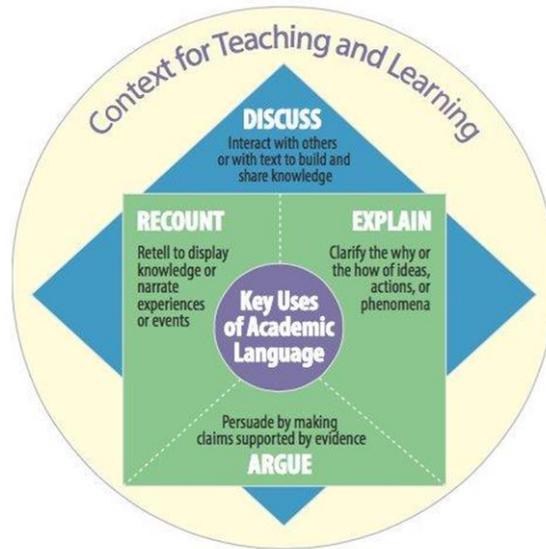
- A. Student Moves: Language Use Expectations
- B. Teacher Moves: Supports for Processing, Producing, and Collaborating in the Language of the Content
- C. Teacher Moves: Supports for Collaborating in the Academic Language

Section 3: [Instructional Guidance: Mathematical Practices](#)

- A. Summary: Content Disciplinary Practices and Example Tasks
- B. 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

Section 1: Key Uses of Academic Language

These purposes, referred to as **Key Uses**, were identified based on reviews of literature and a language analysis of college and career readiness standards:



KEY USES	KEY USES DESCRIPTION
RECOUNT	To display knowledge or narrate experiences or events. Example tasks for the Key Use of Recount include telling or summarizing stories, producing information reports, and sharing past experiences.
EXPLAIN	To clarify the “why” or the “how” of ideas, actions, or phenomena. Example tasks for the Key Use of Explain include describing life cycles, sharing why or how things work, stating causes and effects, and sharing results of experiments.
ARGUE	To persuade by making claims supported by evidence. Example tasks for the Key Use of Argue include stating preferences or opinions and constructing arguments with evidence.
DISCUSS	To interact with others to build meaning and share knowledge. Example tasks for the Key Use of Discuss include participating in small or large group activities and projects.

SECTION 2: ELD STANDARDS FRAMEWORK FOR DEVELOPING THE LANGUAGE OF MATH GRADES K-1

Section 2A: Student Moves: Language Use Expectations

TASK SAMPLES from the *WIDA Can Do Descriptors, Key Uses Edition* show us that toward the end of a given level of English language proficiency, and with instructional support, **English learners can process or produce...**

Language Domains	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Receptive Listening & Reading	<p>With appropriate visual, graphic or interactive support students can...</p> <ul style="list-style-type: none"> • Recognize the meaning of frequently occurring words. • Use a limited set of strategies to identify key words. • Select “What comes first, next or last?” in illustrated patterns according to oral directions. • Imitate patterns sounds with physical movement from modeling. • Match pictures of real-life objects with figures of geometric shapes. • Identify two-or three-dimensional shapes depicted in illustrations described orally • Match labeled pictures with general words related to estimation to pictures of varying quantities. 	<p>With appropriate visual, graphic or interactive support, as necessary, student can...</p> <ul style="list-style-type: none"> • Identify patterns from pictures from oral directions. • Find pairs of matching words and diagrams of geometric shapes. • Identify language associated with estimation in illustrated phrases or sentences (e.g., “I see close to 100 nickels.”). 	<ul style="list-style-type: none"> • Form patterns from pictures from detailed oral directions. • Identify words for geometric shapes from labeled diagrams. • Construct and identify two-or-three dimensional figures described orally. • Distinguish between language of estimation sentences (e.g., “I have almost one dollar.”) and language of precision (“I have one dollar.”) in illustrated sentences.

Section 2A: Student Moves: Language Use Expectations (continued)

TASK SAMPLES from the *WIDA Can Do Descriptors, Key Uses Edition* show us that toward the end of a given level of English language proficiency, and with instructional support, **English learners can process or produce...**

Language Domains	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Productive Speaking & Writing	<p>With appropriate visual, graphic or interactive support students can...</p> <ul style="list-style-type: none"> • Participate in short conversations, take turns, and respond to simple yes/o and wh-questions. • Participate in shared, collaborative problem-solving. • Recite math-related words or phrases related to basic operations from pictures of everyday objects and oral statements. • Find and reproduce number words (e.g., from 1-100) from an assortment of labeled visuals. 	<p>With visual, graphic or interactive support, as necessary, student can...</p> <ul style="list-style-type: none"> • Participate in shared, collaborative problem-solving. • Follow rules for discussion. • Ask and answer questions and respond to the comments of others. • Describe representations of basic operations from pictures of everyday objects and oral descriptions. • Express times of day from illustrated scenes and models using words with invented spellings. • Compare the size of two objects in pictures using phrases (e.g., “the smaller ball”). 	<ul style="list-style-type: none"> • Participate in extended discussions, conversations, and written exchanges • Follow rules for discussion. • Ask and answer questions and build on the comments of others. • Compare/contrast language of basic operations from pictures and oral descriptions. • Compare numbers in graphs or visuals using sentences (e.g., “85 is greater than 75. It goes up higher in the table.”).

Section 2B: Teacher Moves: Supports Processing and Producing Language

What general supports can teachers provide to students at different language proficiency levels to process or produce academic language in all language domains? (See the [Go to Strategies Matrix](#), page 19.)

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<ul style="list-style-type: none"> • Build background in key language and concepts. • 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 and discourse starters and visual aids from the text. • Use physical gestures to accompany oral directives. • Label visuals and objects with target vocabulary. • Introduce cognates to aid comprehension. • Give two step Contextualized directions. • Restate/rephrase and use Patterned Oral Language routines. • Provide a list of important concepts on a graphic organizer. • Provide a content vocabulary Word Bank with non-linguistic representations. 	<ul style="list-style-type: none"> • Build background in key language and concepts. • Model orally the academic language and specific vocabulary. • Provide explicit instruction and practice for students to construct the language using sentence and discourse starters and visual aids from the text. • Provide a system for students to record and process key academic and content- specific vocabulary. • Check comprehension of all students frequently. • Use wait time. • Require full sentence responses by asking open ended questions. • Require the use of academic language. • Provide a list of important concepts on a graphic organizer. • Provide a content vocabulary Word Bank with non-linguistic representations. • Extend content vocabulary with multiple examples and non-examples. 	<ul style="list-style-type: none"> • Build background in key language and concepts. • Use complex sentence and discourse starters. • Model orally the academic language and specific vocabulary. • Confirm students' prior knowledge of content topics. • Extend content vocabulary with multiple examples and non-examples.

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

How can teachers provide ongoing opportunities for students to collaborate using academic language?

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • 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 same primary language peer(s). • Use Cloze sentences with a Word Bank. • Use dialogue structures (e.g.): My turn/your turn; Partner A/Partner B; Collaborative groups. 	<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • 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. • 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 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. 	<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • 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.

SECTION 3: INSTRUCTIONAL GUIDANCE
for English Language Development in the Content Area of
Mathematical Practices Grades K-1

SECTION 3: INSTRUCTIONAL GUIDANCE: MATH PRACTICES GRADES K-1

Section 3A: Summary: Content Disciplinary Practices and Example Tasks

Table of example tasks for each practice, with sample proficiency descriptors for each [Key Use of Academic Language](#):

Math Practices	Example Tasks
1. Make sense of problems and persevere in solving them.	Firefly Task Month Digging Dinosaurs
2. Reason abstractly and quantitatively.	Firefly Task
3. Construct viable arguments and critique the reasoning of others.	Equal Sign
4. Model with mathematics.	Base 10 Menu
5. Use appropriate tools strategically.	Firefly Task
6. Attend to precision.	Firefly Task
7. Look for and make use of structure.	Make 5 Book
8. Look for and express regularity in repeated reasoning.	Make 5 Book

Section 3B: Math Disciplinary Practices

Practice 1a: Make Sense of Problems and Persevere in Solving Them – Teacher Moves

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)
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: There are _____. I put _____ on _____. I count _____. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide students the opportunity to share with a partner or in a small group their thinking using sentence frames to support the production and practice of language. • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: There were _____. Now I have _____. There are _____ in all. What do you know? <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. • Provide sentence starters of a leveled list of scaffolding statements. Example: There were _____. Now I have _____. There are _____ in all. What do you know? <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 1b: Make Sense of Problems and Persevere in Solving Them – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 2a: Reason Abstractly and Quantitatively – Teacher Moves

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

<p>Entering/Emerging (Levels 1-2)</p>	<p>Developing/Expanding (Levels 3-4)</p>	<p>Bridging/Reaching (Levels 5-6)</p>
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: _____ + _____ = _____ _____ is greater than/less than/equals _____. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide students the opportunity to share with a partner or in a small group their thinking using sentence frames to support the rehearsal and production of language. • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: I started with _____. I added/ subtracted _____. Now, I have _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. • Provide sentence starters of a leveled list of scaffolding statements. Example: If I _____, I will have _____. I know _____ because _____. This is similar to/different than _____ because _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 2b: Reason Abstractly and Quantitatively – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 3a: Construct Viable Arguments and Critique the Reasoning of Others – Teacher Moves

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)
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: My answer/strategy is _____. My answer/strategy is _____ because _____. My answer is the same/different than yours. Can you please repeat that? • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. (NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3) 	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide students the opportunity to share with a partner or in a small group their thinking using sentence frames to support the production of language, rehearse the language). • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: My solution is different than yours. I think this because _____. I used the same/different strategy as you. Can you tell me more about _____? <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. • Provide sentence starters of a leveled list of scaffolding statements. Example: I was thinking about what _____ said, and I was wondering if _____. I don't understand _____. Can you tell me more about _____? (NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)

Section 3B: Math Disciplinary Practices (continued)

Practice 3b: Construct Viable Arguments and Critique the Reasoning of Others – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 4a: Model with Mathematics – Teacher Moves

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

<p>Entering/Emerging (Levels 1-2)</p>	<p>Developing/Expanding (Levels 3-4)</p>	<p>Bridging/Reaching (Levels 5-6)</p>
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide math manipulatives and expect students to model math problems. • Provide consistent opportunities for students to share with a partner or in a small group. Provide sentence frames to support language production and practice. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: This is _____. There are _____. I used the model _____. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide math manipulatives and expect students to model math problems. • Provide consistent opportunities for students to share with a partner or in a small group. Provide sentence frames to support language production and practice. • Recast student speech correctly. • Provide tasks 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. • Provide sentence starters to scaffold up students’ statements. Example: In my model I showed _____ by _____. This part of the model shows _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). Example: I decided to draw _____ because _____. In my model _____ represents _____. My model shows _____. • Provide dialogue structure (ex. partner A talks then partner B). • Provide math manipulatives and expect students to model math problems. • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 4b: Model with Mathematics – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 5a: Use Appropriate Tools Strategically – Teacher Moves

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

<p>Entering/Emerging (Levels 1-2)</p>	<p>Developing/Expanding (Levels 3-4)</p>	<p>Bridging/Reaching (Levels 5-6)</p>
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group. Provide sentence frames to support language production and practice. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: I drew _____ (name of tool). The best tool is _____ because _____. Can you please repeat that? • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group. Provide sentence frames to support language production and practice. • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: I’m using a different tool than you because _____. I used _____ tool to solve the problem by _____. I used the same /different tool as you. My reason is _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). Example: _____ (name) said _____, and I was wondering if _____ would be a better tool because _____. I didn’t understand why/how you used _____ (tool). Please tell me more. • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 5b: Use Appropriate Tools Strategically – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool</p> <p><u>Assessing the 8 Mathematical Practices Rubric</u></p> <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 6a: Attend to Precision – Teacher Moves

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)
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: This picture shows _____ (math term). I labeled it _____. • Provide a math word/concept wall. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. (NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3) 	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide students the opportunity to share with a partner or in a small group their thinking using sentence frames to support the rehearsal and production of language. • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: _____ (math term) means _____ (from word bank). Point to example, I know my answer is correct because _____. I used the label _____ because _____. (NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3) 	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). Example: I know this is a _____ (math term) because _____. _____ (math term) means _____ (math definition). An example is _____. (Can be a visual.) • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. (NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)

Section 3B: Math Disciplinary Practices (continued)

Practice 6b: Attend to Precision – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 7a: Look For and Make Use of Structure – Teacher Moves

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

<p>Entering/Emerging (Levels 1-2)</p>	<p>Developing/Expanding (Levels 3-4)</p>	<p>Bridging/Reaching (Levels 5-6)</p>
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. • Recast student speech correctly. • Provide simple patterned oral sentence frames for students. Example: I noticed _____. How are _____ the same/different? • Provide a math word/concept wall. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Recast student speech correctly. • Provide tasks 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. • Provide simple sentence starters of a leveled list of scaffolding statements. Example: _____ and _____ are similar/different because _____. I can break apart _____ and make _____ and _____. I can put together _____ and _____ to make _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. • Provide sentence starters of a leveled list of scaffolding statements. Example: We learned about _____ before and that helped us solve this problem by _____. I broke the problem into smaller steps by _____. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 7b: Look For and Make Use of Structure – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 8a: Look For and Express Regularity in Repeated Reasoning – Teacher Moves

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

<p>Entering/Emerging (Levels 1-2)</p>	<p>Developing/Expanding (Levels 3-4)</p>	<p>Bridging/Reaching (Levels 5-6)</p>
<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to draw a picture of their solution and label it. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Recast student speech correctly. • Provide consistent opportunities for students to share with a partner or in a small group their thinking using sentence frames to support the production and rehearsal of language. <p>Example: I see the pattern _____. I can continue the pattern by _____.</p> <ul style="list-style-type: none"> • Provide a math word/concept wall. • Show students how to record academic vocabulary on the Mathematically Speaking Task Template with L1 (primary language) translation or non-linguistic representation. <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide a word bank. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Use pictures, symbols, and illustrations when possible. • Provide adequate time for students to process the language and content. • Recast student speech correctly. • Provide tasks 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. • Provide students the opportunity to share with a partner or in a small group their thinking using sentence frames to support the rehearsal and production of language. <p>Example: I identified the pattern _____. The repeated patterns I found are _____.</p> <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>	<ul style="list-style-type: none"> • Model orally the academic language and content specific vocabulary required by the lesson. • Provide advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc). • Provide dialogue structure (ex. partner A talks then partner B). • Extend student language by modeling a more sophisticated way to respond. • Provide tasks for students to use illustrations or numbers to explain their understandings. • Provide tasks 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. • Provide sentence starters of a leveled list of scaffolding statements. <p>Example: The pattern shows _____, so I know _____. The rule is _____, so I know _____.</p> <p>(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)</p>

Section 3B: Math Disciplinary Practices (continued)

Practice 8b: Look For and Express Regularity in Repeated Reasoning – Success Criteria

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

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Solve problems and identify the associated academic vocabulary on Exit slips and other formal or informal assessments. • Describe steps to solve problems using pictures, symbols, or artifacts. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain and produce a graphic representation (illustration or numbers) of their strategy for solving problems. • State some specific and technical academic vocabulary in their explanation and justification of one of the preferred student strategies. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p style="text-align: center;">Success Criteria</p> <p>Students will...</p> <ul style="list-style-type: none"> • Orally explain, justify, and defend their problem solving strategies. • Use specific and technical academic vocabulary in their explanation, justification, and defense of one of the preferred student strategies. <p>Assessment Tool Assessing the 8 Mathematical Practices Rubric (NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>