ELD STANDARDS FRAMEWORK FOR DEVELOPING THE LANGUAGE OF MATH GRADES 2-3

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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.

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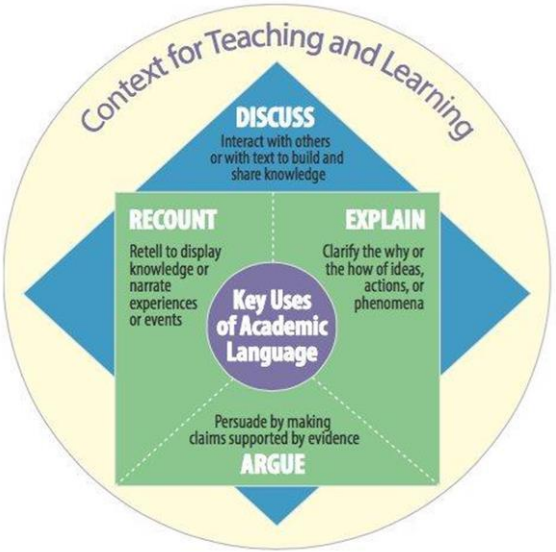
Section 1: Key Uses of Academic Language

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 2-3

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	With appropriate visual, graphic or interactive support students can… • **Recognize** the meaning of some words learned through conversation and show increasing awareness of differences between informal and language appropriate to the classroom. • **Listen actively** to others and respond to simple questions and some wh-questions • **Label** key vocabulary or steps within a math operation. • **Mark** position/location of numbers or illustrated objects from oral commands. • **Identify** comparative quantities of numbers or illustrated objects from oral commands or questions. • **Identify** large whole numbers from pictures or models and phrases or short sentences. • **Match** words or phrases related to estimation to estimate word banks of varying quantities.	With appropriate visual, graphic or interactive support, as necessary, student can… • **Recognize** the meaning of frequently occurring words, phrases, and formulaic expressions • **Identify** language associated with estimation. • **Match** general and some specific language associated with content in oral discourse. • **Sort** examples of large whole numbers from pictures or models. • **Compare** examples of large whole numbers shown in pictures and text. • **Match** situations to use large whole numbers to multiply and divide within 100.	• **Determine** the meaning of general academic and content-specific words and phrases. • **Apply** technical language related content to grade-level oral scenarios. • **Match** situations to use large whole numbers to multiply and divide within 100.

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	With appropriate visual, graphic or interactive support students can… • **State** words in figures or formulas from illustrated examples. • **Use** general vocabulary in math sentences from illustrated examples. • **Construct** a simple claim and provide a reason to support the claim in solving a problem. • **Reproduce** names of three-dimensional shapes from labeled models. • **Recite** math-related words or phrases related to basic operations from pictures of everyday objects and oral statements. • **Find** and reproduce number words from an assortment of labeled visuals.	With visual, graphic or interactive support, as necessary, student can… • **Adapt** language choices, as appropriate, to formal and informal contexts. • **Use** a wider range of general academic and content-specific words in conversation and discussion. • **Use** transitional words and phrases to connect ideas. • **Describe** how reasons support the specific approach or strategy in a math scenario. • **Construct** a claim and provide a few reasons to support the claim in solving a problem. • **Relate** multiple uses of specific vocabulary in illustrated math sentences (e.g., "How many are left when you take away?" "Which number is to the left?" • **Describe** attributes of three-dimensional shapes from labeled models. • **Compare/contrast** language of basic operations from pictures and oral descriptions. • **Compare** numbers in graphs or visuals using sentences.	• **Explain** different ways of problem-solving grade-level examples using specific or technical vocabulary. • **Construct** a claim and provide logically ordered reasons to support the claim in solving a problem. • **Incorporate** descriptions of three-dimensional shapes into real-world situations. • **Explain** basic operations involved in problem solving using pictures and grade-level oral descriptions. • **Explain** different ways of problem-solving grade-level examples using specific or technical vocabulary.

Section 2B: Teacher Moves: Supports for 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)
• **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 v**isuals 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.	• **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 w**ait 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.	• **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)
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 same primary language peer(s). • **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. • **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** 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.

SECTION 3: INSTRUCTIONAL GUIDANCE

for English Language Development in the Content Area of Mathematical Practices Grades 2-3

SECTION 3: INSTRUCTIONAL GUIDANCE: MATH PRACTICES GRADES 2-3

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.	Saving Money 2
2. **Reason** abstractly and quantitatively.	Saving Money 2
3. **Construct** viable arguments and critique the reasoning of others.	Saving Money 2
4. **Model** with mathematics.	Saving Money 2
5. **Use** appropriate tools strategically.	Saving Money 2
6. **Attend** to precision.	Looking at Numbers every which way
7. **Look** for and make use of structure.	Looking at Numbers every which way
8. **Look** for and express regularity in repeated reasoning.	Saving Money 2

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)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example**: I used _____to solve the problem. My first step was _____. • **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. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** a word bank**.** • **Write** academic sentence starters and provide an individual sheet various language structures that will be used in the lesson (i.e. explain, compare, and justify). • **Provide** sentence starters of a list of leveled scaffolding statements for students. **Example:** I solved the problem by_____. I first _____. Then I _____. Finally, I _____. I think _____ because _____. • **Provide** adequate time for students to process the language and content. • **Provide** time for students to write down their ideas before small group tasks. • **Provide** learning 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)**	• **Provide** tasks for students to **use** numbers and math terms to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: I solved the problem. I first _____. Then I _____. Finally, I _____. (To describe their process.) What part do you understand? What do you need to find out? • **Provide** a dialogue structure (ex. partner A talks then partner B). • **Extend** student language by modeling a more sophisticated way to respond **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will...** • **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 **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will...** • 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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will...** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** The numbers I can use to represent this problem are _____. The words I can use to represent this problem are _____. My first step was _____. I chose _____ because _____. I did not understand _____. The problem I had was ____. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** I solved the problem by _____. I first _____. Then I _____. Finally, I _____. (To describe their process) I chose the _____ method for solving the problem because it was the most efficient. It was most efficient because _____. I struggled with _____, and I solved it by_____. How can you check your answer? **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers and math terms to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: In order to solve the problem, I _____. My solution was the most efficient because_____. Information that I need is ____ because _____. Another way to solve the problem is _____. The best solution is _____ because_____. The problem(s) I encountered were _____. I solved them by _____. Have you explained how you arrived at your answer? **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will...** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will...** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will...** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** My answer/strategy is _____. My answer/strategy is _____ because _____. My answer matches/doesn't match yours. I think you made your error here (point). Can you please repeat that? • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** My solution is different than yours. I think this is because _____. My solution is the same as yours. I think this because ____. I used the same/different strategy as you. I'd like to add _____ or It's different because _____. Can you tell me more about _____? **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: I was thinking about what _____ said, and I was wondering if _____. I think you made your error _____ (here) the reason why is _____. Could you say more about that? My answer is similar/different than ___ because ____. I can justify the answer by _____. Would someone unfamiliar with your type of solution be able to understand your work? Why or why not? **(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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** I used the _____ model to solve the problem. I drew the _____ model. I do not understand which model to _____ (draw/use /select). The problem I had was _____. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** I solved the problem by _____. I drew _____ because _____. I can prove my answer was correct using the _____ model because _____. I chose the _____ model for solving the problem because _____. I struggled with _____, and I solved it by _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: In order to solve the problem, I _____. I chose to solve the problem by _____. My solution was _____ because _____. I have seen this before when _____. The problem(s) I encountered using this model were. I solved them by _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** The best tool to use is _____. The tool that I drew was _____. The best tool is _____ because _____. Can you please repeat that? • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** I'm using a tool different than you because _____. I used _____ tool to solve the problem by _____. I used the same/different tool as you. My reason is _____. Can you tell me more about _____? Using a _____ shows us _____. Using a _____ can't show us _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: I was thinking about what _____said, and I was wondering if _____ would be a better tool for this problem/process. Could you say more about how/why you used that too? I agree/disagree with _____'s choice of _____ tool, but I chose _____ also/instead because of _____. I could have used ____ (tool) because _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** This picture/drawing shows _____ (math term). _____ (math term) means _____. _____ (math term) is used in this problem. I labeled it _____. I need to label it _____. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** _____ (math term) means _____. My answer is accurate because _____. I used the label _____ because _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: I used the mathematical term _____ to explain _____. M y answer is _____ rather than _____ because _____. **(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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** My conclusion is _____. I noticed _____. These are similar/different because they _____. The pattern/rule is _____. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** Based on the information _____ I can conclude that _____. _____and _____ are both similar/different because they both _____, _____, and _____. The pattern/rule is _____. I know this because _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: If _____ then _____. The trend of the data is _____ because _____. There are several major differences between the patterns/data sets. The most notable is _____ because _____. I can generalize that _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**

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:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
• **Provide** tasks for students to **draw** a picture of their solution and **label** it. • **Provide** a word bank. • **Write** patterned language frames that are simple and consistent that will be used in the lesson (i.e. explain, compare, and justify) and provide an individual sheet for students. • **Model** simple patterned oral sentence frames for students to use with a designated learning partner. **Example:** I see a pattern. (Point) The pattern is _____. My answer makes sense/does not make sense. • **Show** students how to **record academic vocabulary** on the Mathematically Speaking Task Template and encourage students to use their L1 (primary language) translation or non-linguistic representation. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** illustrations or numbers to **explain** their understandings. • **Provide** learning 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. • Students **use sentence starters** from a leveled list of scaffolding statements. **Example:** I was able to identify the pattern _____. My answer makes sense/does not make sense because _____. As a result, I will _____. I know my answer makes sense because _____. The repeated patterns I found are _____. **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**	• **Provide** tasks for students to **use** numbers to **explain** their understandings. • **Provide** advanced levels of sentence starters used for the focused language structures (i.e. comparing/contrasting; explaining, justifying, etc. • **Provide** learning 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 list of leveled scaffolding statements for students. **Example**: My answer makes sense/doesn't make sense because _____. Consequently, I need to _____. Through my work I was able to identify _____ (repeated patterns, etc.). **(NEPF – IP.1.2; 2.1; 2.2; 3.1; 3.2; 5.3)**

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)
Success Criteria **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**	**Success Criteria** **Students will…** • **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. **(NEPF – IP.1.3; 2.2; 3.4; 5.3)**