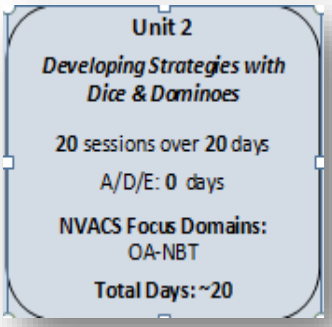
First Grade Unit 2: Developing Strategies with Dice & Dominoes



1st Grade Curriculum Pacing Framework: Balanced Calendar

Big Conceptual Idea: K-5 Progression on Counting and Cardinality and Operations and Algebraic Thinking (pp. 1-7, 12-17), K-5 Progression on Number and Operations in Base Ten (pp. 1-4, 6-7)

Read the Bridges Unit Overview/Introduction for Unit 2 pp. i-vi. Also, read each Module Overview for the current week's sessions, and the current Session Summary along with details for the teaching of each session as you work through Unit 2. These Introduction/Overview/Summary sections provide focus, clarity, vocabulary, definitions, and examples which support the critical "big mathematical ideas and understandings" for 1st Grade. This information supports professional decision-making within the Sessions and Modules as needed.

Mathematical Background: Read Bridges Unit 2 Overview pages (pp. i-viii)	Essential Question for teacher consideration: How will I support students' development of efficient, accurate, and flexible reasoning strategies for counting, adding, and subtracting single-digit numbers, and their use of a variety of mathematical models (dice, dot cards, dominoes, number racks, and coins)?

Instructional note:

> "If you learn something deeply, the synaptic activity will create lasting connections in your brain, forming structural pathways, but if you visit an idea only once or in a superficial way, the synaptic connections can "wash away" like pathways made in the sand." (Boaler, 2016, p. 1)

Throughout *Unit 1*, behaviors and routines have been reestablished so all students actively draw from their previous learning and engage in making connections, building upon what they already know, and making sense of the problems presented. This active connection-making and problem-solving mindset supports learning throughout all *Number Corner, Problems and Investigations*, and independent or partner *Work Place* interactions and games. It also supports choice and use of manipulatives and the ability to focus attention, notice details and patterns, make mathematical thinking visible, and express and explain thinking. These behaviors provide great opportunities for child watching throughout math instruction. The teacher understanding of the "big mathematical ideas" expected from the NVACS within each unit (clarified in the *Overview/Introduction/Summary* sections) provides expertise for child watching, and the ability to identify partial understandings as students engage in problem solving. These observations inform teacher instructional steps throughout each *Bridges* session, and provide the opportunities required to support and scaffold each students' learning.

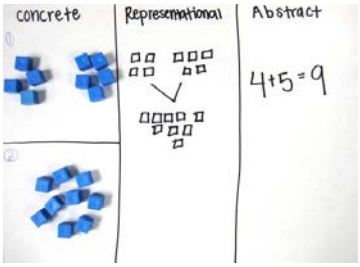
In *Unit 2*, students will be gaining confidence and security with efficient, effective, and sensible strategies for single-digit addition and subtraction. They will be engaging in strategies such as counting from, counting on, combining small groups of numbers within larger numbers, building from known facts, using doubles, using 5 and 10 as anchor numbers, counting by 5s and 10s, using the commutative property and the relationship between addition and subtraction to work with numbers and solve problems. The ability to subitize (to see and use smaller numbers within larger numbers without counting) leads to part/whole reasoning which is the basis for the development of algebraic reasoning.

Students will be transitioning from "calculating by counting" to "calculating by structuring" for both addition and subtraction. This transition encourages a deeper understanding of subtraction as "the difference" between two sets (compare problems vs. separate/take from problems). It also supports relational reasoning including the relational view of equality. See *Teaching Tips* in the *Introduction* of *Unit 2* (p. vi) for Number Rack clarifications and support for the careful selection of problems to help move student development through these transitions of learning.

There are 3 phases of learning that students must pass through to develop fluency and the flexible, efficient, appropriate, and accurate ability to "know from memory" expected by the end of 2nd grade. The three phases are 1) constructing meaning and counting strategies, 2) constructing reasoning strategies, and 3) working toward quick recall. First Grade students are building fluency by engaging in strategies predominantly in phases 1 and 2. Therefore, opportunities to direct model problem situations and equations and use counting strategies to find the unknown support student development. Research shows that, "…instruction must help students through these phases without rushing to know their facts from memory" (Van de Walle, Karp, Bay-Williams, 2013, p.171). As a caution, "…drill in the absence of accomplishing these phases has repeatedly been demonstrated as ineffective" (Van de Walle, et. al., 2014, p. 184). "Unfortunately many classrooms focus on math facts in unproductive ways, giving students the impression that math facts are the essence of mathematics, and, even worse that the fast recall of math fact is what it means to be a strong mathematics student. Both of these ideas are wrong and it is critical that we remove them from classrooms, as they play a large role in the production of math anxious and disaffected students" (Boaler, 2015, p. 1). With these arguments in mind, it is imperative the big idea of this unit remains constructing meaning and constructing reasoning, which involve the strategic behaviors mentioned above. The purpose is deepening student understanding of numbers and their relationships to one another. See the fluency resources on the district site, as well these direct links for further information.

https://bhi61nm2cr3mkdgk1dtaov18-wpengine.netdna-ssl.com/wp-content/uploads/2015/03/FluencyWithoutFear-2015.pdf
http://www.washoeschools.net/cms/lib08/NV01912265/Centricity/Domain/253/Math%20K-6/Basic%20Math%20Facts.pdf

As students move through phases of fluency, they will also be progressing through concrete, representational and abstract reasoning. While students are solving problems with concrete materials, provide ample opportunity for them to share their thinking with peers, through partner work, and whole class sharing/discussion. Invite students to share their models and thinking and have students discuss how models compare to each other. By listening to others' justifications for strategies used and critiquing others' reasoning, students can discover and correct their own misconceptions and partial understandings and extend their own understandings.



On-going enrichment:
The *Skills Across the Grade Level* chart in the *Introduction* section (*Unit 2* p. vi-vii) shows that all standards are only being introduced or developed throughout this *Unit*. This is important information for those day-to-day professional instructional decisions that have to be made within each session as to what discussions or activities to extend, cut short, emphasize, skip, or…etc.
Expect all students to engage in the math.

Continue to consider "Support" and "Challenge" options within each *Session*, and "Game Variations", "Differentiate", and "English-Language Learners" ideas in *Work Places*.

Essential Academic Vocabulary Use these words consistently during instruction.		
New Academic Vocabulary: (first time explicitly taught) *indicates Word Resource Cards are available in the Bridges materials	Review Academic Vocabulary: (Vocabulary from Number Corner or previous units)	
Even number* Odd number* Difference*	*Add** *Addition* *Doubles* *Equal** *Half** *Sum or Total** *Greater than**	*Less Than** *Column** *Row** *Equation** *Fact family** *Subtract** *Subtraction*

Additional terminology that students may need support with: minus, plus, problem solving, reasonable, strategies

Collaborative Team Conversations (CTC)
Consider using *one* of the following as part of the formative assessment process at the lesson level to **collect student work** to analyze for evidence of mathematical understanding:

Guiding questions: "What strategies are students using to solve and record addition combinations to 10?"
"How and when are they seeing and using the structure of the number system to help them solve the problem?"
"What interactions will support intensification of understanding for composing combinations to 10 if needed?"

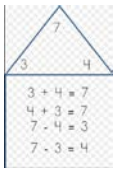
Lesson	Evidence	Look for
U2M2S5 *Domino Addition Checkpoint Part 1* TG pp.27-30	*Domino Addition Checkpoint Part 1* observation and student record sheet (TG U2M2S5 p. T12) *Domino Addition Checkpoint Part 1 Scoring Guide* (AG Bridges Unit Assessments pp.15, 17)	Focus CTC around conceptual understandings of the big idea and strategies used: • counting every dot • counting on from the smaller quantity • counting on from the larger quantity • using a known fact to help
U2M2S5 *Domino Addition Checkpoint Part 2* TG pp.31-32	*Domino Addition Checkpoint Part 2* observation and student record sheet (TG U2M2S5 p. T12) *Domino Addition Checkpoint Part 2 Scoring Guide* (AG Bridges Unit Assessments pp.16, 18)	Focus CTC around conceptual understandings of the big idea and strategies used: • counting every dot • counting on from the smaller or larger quantity • using a known fact to help • recalling quickly

Learning Cycle Assessments (summative)	*Number Corner Baseline Assessment* NC TG Vol. 1 September, pp. 47-50 *Baseline Interview Response Sheet & Baseline Written Assessment* NC TG Vol. 1 September, pp. T10-T12; AG Number Corner Assessments pp.7-9	Use *Baseline Assessment Scoring Guide* AG Number Corner Assessments p. 10

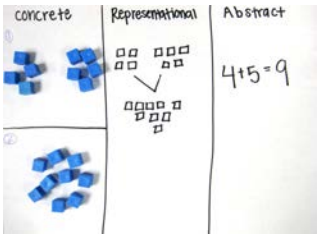
Standards listed in **bold** indicate a focus of the lesson.

NVACS (Content and Practices)	Mathematical Development of the Big Idea	Instructional Clarifications & Considerations
Module 1- Session 1: Introducing Dominoes		
K.CC.5 1.OA.5 1.OA.6 MP.7	Access Prior Learning: • Student built schema about dominoes in prior lessons. • Students experienced "count to answer how many" in kindergarten. Developing the Big Idea and key Strategic Behaviors: • subitizing • understanding part/whole relationships • counting on	Guiding Question: • What can you do with the dots on a domino? Instructional Notes: • You will need the Domino Addition by Lynette Long text (this book came in your materials). • Review the MP.7 poster and support student's natural inclination to look for structure when using dominoes. This strengthens subitizing skills, and helps them see the relationships between numbers. See Math Practices in Action (p. 4). Child Watching: • Identify students who count three times (3x) - count set 1, count set 2, and then count all to find the total. • Identify students who are subitizing smaller numbers (1-3) and counting on. • Identify students who are beginning conceptual subitizing (for example, subitizing a 1 and a pattern of 3 to determine a total of 4). This is a higher level of sophistication than just subitizing the typical pattern of four dots.
Module 1- Session 2: Introducing Work Place 2A Domino Top Draw		
K.CC.6 1.OA.5 1.OA.6 1.NBT.1 MP.7 MP.8	Access Prior Learning: • Students experienced "count to answer how many" in kindergarten. Developing the Big Idea and key Strategic Behaviors: • subitizing • understanding part/whole relationships • counting on	Guiding Questions: • What do you already know about comparing? • How can you compare dominoes? Instructional Notes: • Students may continue to count all the dots on the dominoes. Focus on using strategies that start with subitizing one part of the domino, and counting on from there. • Introduce *Math Practice 8*. Hang the poster with the others (found here). Enrichment: • See *Game Variations* on *Work Place Instructions* (p. T2). Child Watching: • Identify students who continue to count all the dots by 1s. Practice identifying groups of dots by Quick! Look! Methods from Unit 1 Module 3 Session 4. See Assessment and Differentiation chart on Work Place Guide (p. T1).
Module 1- Session 3: Domino Add & Compare		
1.OA.5 1.OA.6 1.OA.7 1.NBT.3 MP.2	Access Prior Learning: • Students identified greater than, less than, or equal in kindergarten. • Kindergarten students were exposed to the symbols, but were not expected in the standards to master these yet. Developing the Big Idea and key Strategic Behaviors: • subitizing • understanding part/whole relationships • counting on • comparing numerals <, >, =	Guiding Questions: • What does equal mean? • What symbols can you use to compare quantities? Instructional Notes: • Consider establishing a set of expectations for having students talk to each other (turn and talk procedures). This supports a culture of discussion where students feel comfortable with an equitable practice for sharing their thinking. Many teachers find success in assigning partners for math discussions such as partner A & B, peanut butter & jelly partners etc. Support the expectations by modeling how to turn quickly to "knee to knee and eye to eye" with their partner. Consider directing at first who speaks first to help partners manage the dynamics of one partner controlling the conversation, or one sitting back and letting others do the talking work. • During the game, have students share ideas with partners on finding the totals. • A numerical support for the greater than and less than symbols (<,>) is, between the 2 numbers, place 2 dots next to the larger number and 1 dot next to the smaller number. When the dots are connected, they form the correct symbol between the two numbers. The "alligator eats the biggest number" method is not recommended, as it is not consistent with mathematical thinking, but rather a gimmick. • See the Bridges Educator site for this online game to reinforce comparison. Enrichment: • See Step 8 (p. 14).  *-continues on next page-*

		Child Watching: • Identify students struggling with the symbols. Ask them to circle the greatest number as well, so you can determine if the concept of quantity is the struggle or if using the symbols correctly is the struggle.
Module 1- Session 4: Our Addition Strategies Chart		
1.OA.3 1.OA.5 1.OA.6 MP.2 MP.3	Access Prior Learning: • Review Domino Add and Compare game. Developing the Big Idea and key Strategic Behaviors: • subitizing • understanding part/whole relationships • counting on • using a known fact	Guiding Questions: • How many different strategies can you use to add two numbers? • What are advantages and disadvantages of different strategies? Instructional Notes: • Read the *Math Practices in Action*, and revisit MP.3 poster (p. 18). • In preparation, predict which strategies might be shared, and by whom, so you can strategically select which students you might have share with the class first, next and so on, based on the level of sophistication of strategy. Have students share strategies from the lowest sophistication to highest sophistication. Sharing a lower sophistication strategy will ensure that most students will have an entry point to the problem solving. Enrichment: • See game variations on the *Work Place Guide* (p. T5). Child Watching: • Identify students using strategies such as "I could see 3 & 3, and that's 6. Then if you put 1 more on, it is 7" (p. 17). These are indications of students moving into Phase 2 of fluency development, Reasoning Strategies [deriving a fact from a known fact (doubles).
Module 1- Session 5: Domino Magic Squares		
1.OA.3 1.OA.5 1.OA.6 MP.2 MP.4 MP.6	Access Prior Learning: • Exposure to this idea may have occurred in the context of classroom conversations in previous domino sessions. However, this was not a kindergarten standard. Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • subitizing • understanding part/whole relationships • counting on	Guiding Question: • If I have 2 dominoes, how many different combinations can you make? Instructional Notes: • Read *About This Session* (p. 22). • The commutative property of addition (numbers can be added in any order) is a big idea for students to grasp. This property states the same addends added in a different order still produce the same total. This relational understanding is useful for students for problem solving, building fluency, and mental mathematics. A common misconception for students is to attempt to overgeneralize the commutative property to subtraction. Teachers can use situations in context and story problems to confront this misconception. (Van de Walle, et al., 2014, pp. 138-139). Enrichment: • See Step 9 (p. 24). Child Watching: • Observe carefully student responses to the question (p. 24), "Do you think if we did this activity again with two new dominoes, the same thing would happen? Why or why not?"
Module 2- Session 1: Introducing Double-Flap Dot Cards		
1.OA.3 1.OA.4 1.OA.6 1.OA.8 MP.2 MP.4	Access Prior Learning: • Connect to previous day's work, and highlight any "ah-has" discovered around commutativity. Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • understanding part/whole relationships • solving for an unknown • writing equations	Guiding Question: • How many different equations can you make from three numbers? Instructional Notes: • The idea of "fact families" appears here. A culturally responsive practice is to relate this concept to students' real lives by stating that each family is made up of different members. Consider drawing a "structure" on the board, putting the three numbers in the corners of the roof's triangle, and writing the corresponding facts in the box. If you start with the largest number on the top of the house, it supports the subtraction equations. • Resources from the Educator site support these basic facts: Game http://www.abcya.com/addition.htm. Enrichment: • See Step 18 (p. 10). Child Watching: • Identify students' misconceptions with writing equations using numbers not on their cards (see Step 18). • Identify incorrect subtraction equations when students do not start with the largest quantity, which represents the whole in a part/part whole relationship. Do not look for student mastery in writing fact family equations, but rather an understanding of part/whole relationships between numbers. Use a concrete situational context to model their equation, and then ask, "Is this true". •



Module 2- Session 2: Double-Flap Picture Cards		
1.OA.1 1.OA.3 1.OA.4 1.OA.6 1.OA.8 MP.1 MP.2 MP.4	Access Prior Learning: • Connect to previous day's work with Double-Flap Dot Cards. Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • understanding part/whole relationships • solving for an unknown • writing equations	Guiding Questions: • How can you make a math story from pictures and equations? • How does your story change when the equation changes? Instructional Notes: • Note the *Math Practices in Action* (p. 13). • Consider making Math Practice 1 (make sense of problems and persevere in solving them) explicit in this lesson, although the materials do not call for it as an emphasis. • See the helpful blog titled *The Number Tree Model* on the Educator Site by searching under the Implementation Tab. Consider using the terms Number Tree and Fact Families in conjunction with the mathematical term part/part/whole to strengthen the understanding of different parts creating a whole. Child Watching: • Identify student misconceptions around writing equations with numbers not on their cards (see Step 18). • Identify incorrect subtraction equations when students do not start with the largest quantity, which represents the whole in a part/whole relationship. Do not look for student mastery in writing fact family equations, but rather an understanding of part/whole relationships between numbers. Use a concrete situational context to model their equation, and then ask, "Is this true".
Module 2- Session 3: Introducing Work place 2C Sort the Sum		
1.OA.5 1.OA.6 1.NBT.3 MP.7 MP.8	Access Prior Learning: • Connect to all previous places where students have worked with combinations within 10. Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • subitizing • understanding part/whole relationships • counting on	Guiding Question: • How many ways can you sort dominoes? Instructional Note: • Consider giving students time for an open sort with the dominoes. Students may sort by doubles, by a common sum, by greater than and less than, etc. Enrichment: • See the blog titled *Opportunities to Challenge Learners* (on the Educator Site under the Implementation tab) for ideas for those students who may have demonstrated mastery of given skills across Unit 2 and Unit 3. • See *Work Place Guide* (p. T7). Child Watching: • Identify students still counting domino dots by 1s.
Module 2- Session 4: Double-Flap Number Cards		
1.OA.3 1.OA.4 1.OA.6 1.OA.7 MP.2 MP.4	Access Prior Learning: • Connect to previous day's work with Double-Flap Dot Cards. • Connect to all previous places where students have worked with combinations within 10. Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • subitizing • understanding part/whole relationships • counting on	Guiding Questions: • What does equal mean? • How do you show if two quantities are equal? • Does the location of the equal sign change an equation? Instructional Notes: • A common misconception for students may be that the equal sign represents "the answer is," as hitting equals on the calculator creates the final answer. Look for opportunities to write equations with the sum/difference at the beginning. Also when asking for an equivalent equation (dot cards 3+3 and 5+1), consider showing them as 3+3=5+1 (Van de Walle, 2014, pp. 134 & 230). • See Step 5 for more explanation regarding the equal sign. • Consider using a balance scale to represent the idea that both sides of the equal sign are equivalent or "the same as". Enrichment: • See Step 18 (p. 25). • Ask students to represent equations in a variety of ways. Child Watching: • Observe students flexibility with using the equal sign.
Module 2- Session 5: Domino Addition Checkpoint		
1.OA.5 1.OA.6 1.NBT.3 MP.5 MP.7	Access Prior Learning: • Connect to previous day's work with Double-Flap Dot Cards. • Connect to all previous places where students have worked with combinations within 10.	Instructional Notes: • The *Assessment Guide* under the *Bridges Unit Assessments* tab provides the scoring guide for this checkpoint (p. 17). • Read the *About This Session* (p. 28). • In analyzing the data, consider how much of your class is moving towards Phase 2 of fluency development, Reasoning Strategies. *-continues on next page-*

	Developing the Big Idea and key Strategic Behaviors: • understanding the commutative property • subitizing • understanding part/whole relationships • counting on	Child Watching: • Use the scoring guide to formatively assess 1.OA.6 & 1.NBT.3.
Module 3- Session 1: Domino Flash		
1.OA.5 1.OA.6 MP.4 MP.5	Access Prior Learning: • Connect to previous work of subitizing. • Connect to all previous work and models for combinations within 10. Developing the Big Idea and key Strategic Behaviors: • using combinations to 12 • subitizing • counting on (from larger or smaller) • using doubles (including +1, -1) • writing equations	Guiding Questions: • How do you see the dots? • How many different ways can you see the dots? Instructional Notes: • Consider using the *Math Practices in Action* (p. 6). • When creating the strategies chart consider drawing a representation of the strategy, rather than just writing the equation (the abstract form). Modeling how to represent math thinking by drawing an illustration or using a manipulative will support students' development from concrete to the abstract.  Enrichment: • See Step 12 (p. 6). Child Watching: • Identify students struggling to model equations on the number rack or represent them with written equations. • Support students who may need another "flash" or a slightly longer "flash".
Module 3- Session 2: Dot Doubles		
1.OA.6 MP.2 MP.4 MP.7	Access Prior Learning: • Connect to all previous work with dominoes. Developing the Big Idea and key Strategic Behaviors: • using doubles • writing doubles equations	Guiding Questions: • What is alike about all these dominoes? • What is different? Instructional Note: • Read *About This Session* (p. 8). Enrichment: • *Game Variation* on *Work Place Instructions* (p. T5). Child Watching: • Identify students struggling to double the numbers (use unifix cubes, or practice counting on using the same dots).
Module 3- Session 3: Introducing Work Place 2E Spin & Add		
1.OA.5 1.OA.6 MP.4 MP.7 MP.8	Access Prior Learning: • Connect to all previous work and models for combinations within 10. Developing the Big Idea and key Strategic Behaviors: • counting on • collecting and graphing data • operating with fluency within 10	Guiding Question: • Do you think you might see any patterns in which sums appear more frequently? Enrichment: • See Step 11 (p. 14) and *Work Place Instructions Game Variations* (p. T7). Child Watching: • Identify students struggling with counting on.
Module 3- Session 4: Introducing Work Place 2F Spin & Subtract		
1.OA.5 1.OA.6 MP.4 MP.7 MP.8	Access Prior Learning: • Connect to all previous work and models for combinations within 10. • Connect to understanding developed yesterday with addition.	Guiding Question: • What patterns do you think we might see today in which sums appear more frequently? Instructional Note: • When using the counting back strategy with subtraction, students have to manage counting backwards while keeping track of how many counts back they have made (thus counting up simultaneously). Consider using a number line for support. Watch for students actually counting the starting number rather than the interval, which will result in an incorrect count. Students need to count the "hops" or the spaces in-between, rather than the numbers. See step 4 (p. 16). *-continues on next page-*

	Developing the Big Idea and key Strategic Behaviors: • counting back • collecting and graphing data • operating with fluency within 10	Enrichment: • See the *Work Place Instructions Game Variations* (p. T10). Child Watching: • Identify students counting the beginning number twice when counting backward. • Identify students struggling to count backward orally.
Module 3- Session 5: Unit 2 Assessment		
1.OA.1 1.OA.3 1.OA.4 1.OA.6 1.OA.8 MP.1 MP.4	Access Prior Learning: • Connect to all previous work and models for combinations within 10. Developing the Big Idea and key Strategic Behaviors: • counting on • counting back • operating with fluency with number combinations within 10	Instructional Notes: • See *Unit 2 Assessment Scoring Guide* in *Assessment Binder* under the *Unit Assessment Tab* (pp. 20-21). • Consider using the Grade 1 Math Progress Report: Quarter 1 documents (in your assessment binder (p. 36) under the *Assessment Overview* tab) as a tool for report cards. • Students may struggle with problem 2, which asks them to write a story problem to match an equation. Students have not had many opportunities to practice this independently. Use this formatively to identify student strengths and needs and support over time. Child Watching: • See *Support and Intervention* page in the *Assessment Binder* (p. 13). • Observe for and consider using intervention resources if you see students struggling with: counting forward to 30 from a number other than 1; counting backward to 0 from any number up to and including 10; representing addition and subtraction with objects, fingers, or drawings; solving addition and subtraction story problems within 10 by using objects or drawings. • Consider the *Bridges* intervention resources if you see any of the above (located on the Educator Site under the Curriculum tab).
Module 4- Session 1: Many Sea Stars Have Five Arms (optional)		
1.OA.8 1.G.2 1.G.3 MP.1 MP.6	Access Prior Learning: • Strategies were used throughout previous units and NC with 5-frames, 10-frames, and number racks. Developing the Big Idea and key Strategic Behaviors: • counting by 5 and 10 • using strategies with 5 and 10	Instructional Notes: • Sessions 1, 2, and 3 are optional sessions or time may be uses as A/D/E days. • Continue to provide opportunities to observe patterns, especially patterns of 5.
Module 4- Session 2: Assembling the Sea Star Quilt (optional)		
1.OA.8 1.NBT 1.G.2 MP.7	Access Prior Learning: • Strategies were used throughout previous units and NC with 5-frames, 10-frames, and number racks. Developing the Big Idea and key Strategic Behaviors: • counting by 5 and 10 • using strategies with 5 and 10	Instructional Notes: • Sessions 1, 2, and 3 are optional sessions or time may be uses as A/D/E days. • Continue to provide opportunities to observe patterns, especially patterns of 5, and counting by 5s. • Consider including the Home Connection, pp. 29-30, Addition & Subtraction Practice, during a different time (see Home Connections, U2M4S2 p. 11, for details).
Module 4- Session 3: Sea Star Counting by Fives (optional)		
1.OA.8 1.NBT MP.7 MP.8	Access Prior Learning: • Strategies were used throughout previous units and NC with 5-frames, 10-frames, and number racks. Developing the Big Idea and key Strategic Behaviors: • exploring multiples of 5	Instructional Notes: • Sessions 1, 2, and 3 are optional sessions or time may be uses as A/D/E days. • Continue to provide opportunities to observe patterns, especially patterns of 5, and counting by 5s. • Consider including the Student Book, p. 9, Counting to One Hundred Chart, during a different time (see steps 7 and 8, U2M4S3 p. 15, for questions to consider using this chart).

Module 4- Session 4: Who Has More Cents with Nickels & Pennies?		
1.OA.5 1.OA.8 1.NBT.3 MP.7 MP.8	Access Prior Learning: • Students worked with nickels and pennies previously. • Strategies were used throughout previous units and NC with 5-frames, 10-frames, and number racks. Developing the Big Idea and key Strategic Behaviors: • counting by 5 and 1 • building groups of 5 and 10 • counting strategies using 5 and 10	Guiding Questions: • What do you already know about nickels and pennies? • How are nickels and pennies like other tools you use? Instructional Note: • Money is used in Sessions 4 and 5 as a way to practice counting by 1, 5 and 10 in a new context. Money is not included in the NVACS until 2nd grade. Child Watching: • Observe for flexible understanding of groups of 5 and 10 using various models.
Module 4- Session 5: Who Has More Cents with Dimes, Nickels & Pennies?		
1.OA.5 1.OA.8 1.NBT.3 MP.7 MP.8	Access Prior Learning: • Strategies were used throughout previous units and NC with 5-frames, 10-frames, and number racks. Developing the Big Idea and key Strategic Behaviors: • counting by 1, 5 and 10 • counting strategies using 5 and 10 understanding • comparing	Guiding Questions: • What do you already know about dimes? • How are dimes the same and different from nickels and pennies? • How are dimes like other tools you use? Instructional Note: • Money is used in Sessions 4 and 5 as a way to practice counting by 1, 5 and 10 in a new context. Money is not included in the NVACS until 2nd grade. Child Watching: • Observe for flexible understanding of groups of 5 and 10 using various models.

References

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