Grade 1 Math Curriculum Guide

In Grade 1, instructional time should focus on four critical areas:

- Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20
- Developing understanding of whole number relationships and place value, including grouping in tens and ones
- Developing understanding of linear measurement and measuring lengths as iterating length units
- Reasoning about attributes of, and composing and decomposing geometric shapes.

Eugene School District 4J Elementary math curriculum is comprised of LearnZillion with Number Talks and selected math games integrated. The following document contains pacing and usage guidance for these three components.

Overall pacing guidance is given by month to ensure teachers have flexibility to use the information about the major ( ), supporting ( )and additional ( ) work for your grade-level and professional judgment when meeting the needs of students. It is most important to ensure students have opportunities to master grade-level content standards rather than teaching each lesson. Student unit workbooks are color coded to convey the primary domain of their learning.

Instructional Days	172.5	Lessons Available	168
Term 1	88	Units 0-8	79*
Term 2	84.5	Units 9-17	90**

* include Unit 0 available lessons

** Unit 9 will begin in Term 1 & assessed in Term 2

Color Key by Domain	**NF**	**OA**	**CC**	**GEO**	**NBT**	**MD**

Unit-at-a-Glance pages are available for each unit at Eugene4J.LearnZillion.com. These pages detail prior knowledge, common misconceptions, differentiation/game resources, Number Talk recommendations, and more. Unit Planners indicate important vocabulary, materials to prep/gather, possible formative checkpoints, and expected representations/strategies.

Key Concepts for each unit can provide instructional guidance around the main focus for student learning and the depth of exploration and mastery toward a standard. Key Concepts are taught through a sets of lessons based on the 3 aspects of rigor: Conceptual, Fluency/Procedure, and Application. The final focused opportunity for each standard is noted with black outline. A standard that is isolated to a single unit is indicated with +.

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Standards for Math Practice (MP#) have been listed for each unit. While the curriculum highlights opportunities to elevate these in learning, it is essential that these standards be embedded into student learning when they occur regardless of the few called out in this document. For more information on the Standards for Math Practice, please visit: Illustrative Math

Number Talk Guidance: Number Talks are an essential instructional routine provided to support development of mental math fluency and strategic number sense. This important routine should be incorporated outside of the 60-minute math block on a regular basis. A variety of Number Talks have been recommended for use at the start of school, fall, winter and spring. Use your professional judgment along with the collaborative efforts of building staff and Staff Development Specialists when meeting the needs of students.

Game Resource Guidance: It is critical to note that fluency requires a balance of conceptual understanding and computational procedures. Well-posed and engaging math games afford students excellent opportunities to develop this understanding**.** These games have been identified in Investigations and other resources and provided by unit to reinforce prior knowledge concepts or enhance the key concepts of a unit. Guidance is provided for when and how to integrate these games, however, use your professional judgment when meeting the needs of students.

A few questions teams have asked while using this document:

- What are the concepts covered term 1 vs term 2? How does the standard progress over the year? Where does the standard occur before it is finalized?
- Knowing all standards must be learned and the majority of the year (~80%) should be spent on major work ( ), where can we compact, not skip, if needed?
- What is the focus of the unit? What is the primary domain? Is it major ( ), supporting ( ), or additional ( )work?
- How will strategies for fluency (efficiency, accuracy, flexibly) be built through games and Number Talks over the year?
- What are the Key Concepts students should master in this unit? To what depth is the current unit calling for? (range of numbers, strategies, use of abstraction like equations, concept awareness and flexibility, etc.)
- Within the unit, for each Key Concept, what do I want ALL of my students to know an be able to do?
- How can I use the set of lessons available for a Key Concept to support ALL of my students in this learning?
- What “I can” or “I know” statements would make the Key Concepts clear to my learning community?
- What evidence can I gather to show students have learned the Key Concept?
- Considering the Key Concept, how will I support students who need more support or are ready for more challenge? What games or Number Talks might support my learning community?
- How can I leverage and reinforce the Math Practices as students learn Key Concepts?

Reach out to your school’s Staff Development Specialist if clarification or support is needed.

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Reporting Period 1

Instructional Days: 88	**LearnZillion Units:** 0-8 (79 lessons available)

★ **Unit 0: Building a Mathematical Community in Grade 1 (Lessons: 6)**
Ideas to compact: Unit 0's Lessons 5 & 6 can be combined with or replace Unit 1's Lessons 1 & 2

	Lesson & Standards	Key Concepts
September	**Unit 1 - Understanding ten ones make a ten**	
	Lessons: 11 (10+assessment) 1.OA.C.6 1.NBT.B.2.a+ 1.NBT.B.2.b+ MP1, MP2, MP3, MP7	1. A ten is a bundle of ten ones. 2. The numbers from 11 to 19 are made of a ten and 1, 2, 3, 4, 5, 6, 7, 8, or 9. 3. We can count on or make ten to add and subtract within 20, and the total or difference stays the same regardless of the strategy we use.
October	**Unit 2 - Using data to add and subtract to 20**	
	Lessons: 11 (10+assessment) 1.OA.A.1 1.OA.B.4 1.OA.C.5 1.MD.C.4 MP1, MP4, MP6	1. We can organize, represent, and interpret data to answer questions about situations. 2. We can use counting to add because counting on n more is the same as adding on more. 3. We can use counting to subtract because figuring out how many to count on is the same as figuring out how many were added on.
October	**Unit 3 - Ordering and comparing lengths**	
	Lessons: 6 (5+assessment) 1.MD.A.1+ MP2, MP3, MP5, MP6, MP7	1. Comparing lengths of objects requires taking both endpoints into account. 2. If object A is longer than object B and object B is longer than object C, then object A is longer than object C
End Oct - November	**Unit 4 - Exploring quantities to 99**	
	Lessons: 11 (10+assessment) 1.NBT.A.1 1.NBT.2.B.c MP4, MP6, MP7	1. As we count by ones, the quantity represented by the number in the counting sequence increases by one because every whole number is one away from the whole number before or after it in the counting sequence. 2. As we count by tens, the quantity represented by the number in the counting sequence increases by tens. 3. Quantities are conserved, regardless of how they are counted.
November	**Unit 5 - Telling and writing time to the hour** Ideas to compact:	
	Lessons: 6 (5+assessment) 1.MD.B.3 MP5, MP6	1. We can tell and write time to the hour using analog and digital clocks.

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End Nov - December	**Unit 6 - Developing addition and subtraction strategies**	
	Lessons: 11 (10+assessment) 1.OA.B.3 1.OA.B.4 1.OA.C.6 MP3, MP7	1. The commutative property can be applied to addition. 2. Subtraction can be thought of as an unknown-addend problem because of the inverse relationship between addition and subtraction. 3. We can use strategies such as making ten, counting on, and the relationship between addition and subtraction to add and subtract within 20.
December	**Unit 7 - Distinguishing attributes of shapes** Ideas to compact:	
	Lessons: 6 (5+assessment) 1.G.A.1 MP3, MP7	1. Shapes have both defining (triangle are closed three-sided shapes) and non-defining (color, orientation, overall size) attributes
End Dec - January	**Unit 8 - Using place value to read, write, represent, and compare numbers**	
	Lessons: 11 (10+assessment) 1.NBT.A.1 1.NBT.B.2.c 1.NBT.B.3 MP2, MP7	1. When we count to 120, we use tens and ones in the same way as when we count to 20. 2. The first digit of a two-digit number tells us how many tens there are, and the second digit tells us how many ones there are. 3. Understanding the structure of the place value system allows us to determine whether one number within (100) is greater than, less than, or equal to another number.

Standards in Progress...	**Standards Finalized (moved to in Maintenance)**	**Standards Not Yet Taught**
1.OA.A.1 - Solves word problems within 20 by understanding how to use objects, drawing or equations to show adding to, taking from, putting together, or taking apart quantities in the situation. **1.OA.B.3 & 1.OA.B.4 -** Begins to understand both that, when adding, numbers can be added in any order (commutative property) and that order doesn't matter (associative property). Students begin to explore a "think addition" strategy (such as 9-7=? As 7 and how many more to get to 9) within 20. **1.NBT.B.3 -** Compares numbers using "greater than, less than, equal to" not necessarily >,<,= **1.MD.B.3 -** Tells time to the hour with analog and digital **1.MD.C.4 -** Sorts, organizes, and asks questions about data, and answer how many in each category (up to 3 categories) and altogether **1.G.A.1 -** Students should be able to sort and group shapes by their defining attributes (like sides and curves) versus non-defining attributes (like color or size).	1.OA.C.5 1.NBT.A.1 1.NBT.B.2 1.NBT.B.2.a 1.NBT.B.2.b 1.NBT.B.2.c 1.MD.A.1	1.OA.A.2 1.OA.C.6 1.OA.D.7 1.OA.D.8 1.NBT.C.4 1.NBT.C.5 1.NBT.C.6 1.MD.A.2 1.G.A.2 1.G.A.3

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Reporting Period 2

Instructional Days: 84.5	**LearnZillion Units:** 8-17 (90 lessons available)

End Jan - February	**Unit 9 - Extending strategies for solving addition and subtraction problems**	
	Lessons: 16 (15+assessment) 1.OA.A.1 1.OA.B.3 [redacted] 1.OA.C.6 1.OA.D.7 [redacted] MP1, MP2, MP3, MP4	1. Objects and drawings can be used to represent and solve situational problems (add to, take from, put together, take apart, and comparing with unknowns in all positions) involving addition and subtraction.
		2. We can use strategies such as making ten, counting on, decomposing a number leading to a ten and the relationship between addition and subtraction to add and subtract within 20.
		3. The equal sign indicates balance and means that the expressions on either side have the same value.
		4. We can organize, represent and interpret data (up to three categories) and make comparative statements about the values in the categories using our knowledge of numbers.
February	**Unit 10 - Telling and writing time to the half hour** Ideas to compact:	
	Lessons: 6 (5+assessment) [redacted] MP5, MP6, MP7	1. We can tell and write time to the half hour using analog and digital clocks.
End Feb - March	**Unit 11 - Adding multiples of ten**	
	Lessons: 11 (10+assessment) 1.NBT.C.4 1.NBT.C.5 MP1, MP5	1. We can find 10 more than a two-digit number without having to count, by adding a ten.
		2. We can add two-digit numbers by adding tens to tens and ones to ones.
		3. When adding two-digit numbers, we can compose a new ten from ones.
March	**Unit 12 - Composing and drawing shapes** Ideas to compact:	
	Lessons: 7 (6+assessment) [redacted] [redacted] MP2, MP4	1. Shapes have attributes that are both defining (number of sides) and non-defining (size).
		2. We can use two- and three-dimensional shapes to compose a composite shape.
April	**Unit 13 - Interpreting and using symbols in numeric expressions and comparisons**	
	Lessons: 11 (10+assessment) [redacted] [redacted] [redacted] MP2, MP4	1. True equations show the same value on either side of the equals sign. (An equation says that the quantities on either side of the equals sign are the same. An equation is true if the quantities on either side of the equal sign are the same, and false if they are not.)
		2. The unknown number in an equation will make the equation true.
		3. Symbols can be used to compare numbers. (We can use the < and > symbols to compare quantities that are not equal.)

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April	**Unit 14 - Using understanding of place value to add and subtract**	
	Lessons: 11 (10+assessment) 1.NBT.C.4 1.NBT.C.5 1.NBT.C.6+ MP6, MP7, MP8	1. When adding two-digit numbers, we add tens with tens and ones with ones (sometimes composing a ten).
		2. We can find ten more or ten less without having to count.
		3. We can use our understanding of place value to add and subtract ten to/from multiples of ten.
May	**Unit 15 - Applying properties of operations to solve addition problems**	
	Lessons: 11 (10+assessment) 1.OA.A.2 1.OA.B.3 MP1, MP2, MP7, MP8	1. We can add more than two numbers together.
		2. When we are adding numbers together, it doesn't matter what order they are written in.
		3. When we are adding numbers together, it doesn't matter how they are grouped.
May	**Unit 16 - Modeling and composing shapes**	
	Lessons: 11 (10+assessment) 1.MD.A.2 MP2, MP3, MP5, MP6	1. Lengths can be measured indirectly by iterating length units.
		2. The length measurement is the number of same-size length units that span it with no gaps or overlaps.
		3. Length measurements are only accurate if the end of the length unit and the object being measured are aligned.
June	**Unit 17 - Finding equal shares of shapes** Ideas to compact:	
	Lessons: 6 (5+assessment) 1.G.A.3 MP3	1. Circles and rectangles can be partitioned into two smaller equal shares (use the terminology halves and half of) and describe the whole as two of the smaller equal shares.
		2. Circles and rectangles can be partitioned into four smaller equal shares (use the terminology fourths, quarters, fourth of, and quarter of) and describe the whole as four of the smaller equal shares.
optional	**Unit 18 (optional) - Demonstrating proficiency in addition and subtraction situations** Optional Focus Lessons:	
	Lessons: 11 (10+assessment) 1.OA.A.1 1.OA.A.6 MP3, MP8	1. The meaning of addition and subtraction do not change no matter which tools we are using.
		2. We can solve many kinds of problems using addition and subtraction.
		3. We can use addition and subtraction facts we already know to help us solve addition and subtraction problems we haven't seen before.

NOTE 1.OA.C.6 - Add/Sub within 10: Fluency is built all year within lessons, during Number Talks and through game play. Focus on efficiency and flexibility that lead to accuracy is key for this standard.

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Developing Math Fluency with Grade 1 Number Talks

Overview: Number Talks supports the development of students' procedural fluency from conceptual understanding. This instructional routine takes about 5-15 minutes. The routine structures classroom conversation around purposefully ordered computation problems that students solve mentally.

Recommended Number Talk Sets
Introduction (Establishing expectations for Number Talks)
Grade K - Fluency with Numbers 5-7 • Dot Images with Number • Rekenreks with Number • Five-Frames with Number
Fall
Addition: Counting All/Counting On • Dot Images • Rekenreks • Double Ten-Frames • Number Sentences
Winter
Addition: Doubles/Near Doubles • Rekenreks • Double Ten-Frames • Number Sentences Addition: Making Tens • Rekenreks • Double Ten-Frames • Number Sentences
Spring
Addition: Making Landmark or Friendly Numbers

Common Tools:

- Dots
- Rekenreks
- Five/Ten Frames
- Open Number line
- Hundreds Chart
- Cubes, Tiles, Counters
- Real-life Context

General Prompts:

- I agree with _____ because _____.
- I do not understand _____. Can you explain this again?
- I disagree with _____ because _____.
- How did you decide to _____?

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Practicing Math Fluency with Grade 1 Games

Purpose: Games provide additional practice to develop fluencies and opportunity to encourage a positive relationship with mathematics and peers. While teachers have identified 2-4 games per unit to support Operations and Algebraic Thinking, other game resources have been included in a Grade-level Games Binder. Teachers are encouraged to enhance standards with other materials or activities at their discretion. Game structures such as partners, small group, or differentiated review rely on a solid foundation of positive mathematical mindsets and clear community expectations. Unit 0 provides many instructional strategies to enhance such an environment.

Unit	Games in LZ	Supplemental Game	Source	Standard(s) for Supplemental Games
Unit 1	Game Making Teen Numbers "Ones" Race to the Finish Matching/ Concentration Game Double Ten Frame	Roll and Record Compare Compare Dots Compare (Shake and Spill)	Investigations Investigations Investigations Other Resource	1.OA - 5, 6 1.OA.A.1, 1.NBT - 1, 3 1.OA.A.1, 1.NBT - 1, 3 1.OA.A
Unit 2	Heads or Tails? Using Counting On to Subtract	Collect 20 Together Counters in a Cup How Many am I Hiding? Roll and Record Subtraction	Investigations Investigations Investigations Investigations	1.NBT.1 1.OA - 4, 8 1.OA - 3, 6, 1.NBT.2a 1.OA - 5, 6
Unit 3*	Bake Sale Race to 99	More! Dot Addition	Other Resource Investigations	1.OA.A 1.OA - 3, 5, 6, 7
Unit 4	Missing Number Game Conserving Quantities in Counting-Scoop	A"Mazing" 100 Five in a Row Heads and Tails	Other Resource Investigations Investigations	1.OA-A/B/C, 1.NBT-A/B/C 1.NBT.1 1.OA - 3, 6
Unit 5*	Tick Tock Track the Time	Addition Table Trail 0-5 Addition Tic-Tac-Toe	Other Resource Other Resource	1.OA-A/B/C 1.OA-A/B/C, 1.NBT-A/B/C
Unit 6		Five in a Row with Subtraction Five in a Row with Three Cards	Investigations Investigations	1.OA - 5, 6 1.NBT.1
Unit 7*	Defining/Non-Defining Attributes Guess My Attribute!	Fill the Hexagons Guess My Rule	Investigations Investigations	1.G.2 1.MD.4
Unit 8*	Place Value to 50 with linking cubes Roll and Compare Guess My Number	Double Compare Double Compare Dots	Other Resource Other Resource	1.OA.A.1, 1.NBT - 1, 3 1.OA.A.1, 1.NBT - 1, 3

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Unit 9	Comparing Data Task Cards Coins in my Pocket TicTacToe	Make 10 Tens Go Fish	Investigations Other Resource	1.OA - 3, 6, 1.NBT.2a 1.OA-A/B/C
Unit 10	Got the Time? Digilog Cards	Anything but Ten! Build Ten	Other Resource Other Resource	1.OA-A/B/C, 1.NBT-A/B/C 1.OA-A/B/C
Unit 11	Flip and Add 10 More Spin and Add	Making Moves on a Hundred Chart Roll Tens Ten Plus	Other Resource Investigations Investigations	1.OA-A/B/C, 1.NBT-A/B/C 1.NBT - 1, 2a/c 1.OA - 3, 6, 1.NBT - 2a/b
Unit 12		Addition Table Trail 0-10 Missing Addend Fill the Hexagons	Other Resource Other Resource Investigations	1.OA-A/B/C 1.OA.C 1.G.2
Unit 13	Fish Bowl Create It Build It Two Card Ocean World One Card Ocean World	Greater than, Less than, Equal to	Other Resource	1.OA.C, 1.NBT.B
Unit 14	Composing a New Ten Sorting Game Ten More/ Ten Less Subtracting Multiples of Ten Bingo	Target “Pick Your Sum” Close to 20	Other Resource Other Resource	1.OA-A/B/C, 1.NBT-B/C 1.OA-A/B/C, 1.NBT-B/C
Unit 15	Make My Sum	Five in a Row with Three Cards Anything but Ten! Build Ten	Investigations Other Resource Other Resource	1.NBT.1 1.OA-A/B/C, 1.NBT-A/B/C 1.OA-A/B/C
Unit 16*				
Unit 17*	Four Fourths Equal One Whole			

* No additional aligned games for this unit at this time. Please select from the Games Resources binder to support prior knowledge.

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