

# Grade K: LearnZillion Pacing Guidance & Additional Supports

## 2017-2018 School Year

**In Kindergarten, instructional time should focus on two critical areas:**

- Representing, relating, and operating on whole numbers, initially with sets of objects
- Describing shapes and space.

More learning time in Kindergarten should be devoted to numbers than to other topics.

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.



**LearnZillion Pacing Guidance:** Use the following to ensure students are given opportunities to master grade-level content standards. The start of the year (☼), suggested unit (U#) launch dates, non-student (NS) contact days, and an additional assessment day per unit are provided. Note that some dates were intentionally left unassigned to account for transition to or from breaks and added flexibility for state testing requirements. In an effort to consider the unique characteristics of each school and classroom, pacing guidance is not meant to be rigid rather informed by standards and data driven. Use information about the major, supporting and additional work for your grade-level and your professional judgement when meeting the needs of students. Reach out to your school's Staff Development Specialist if clarification or support is needed.

**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 judgement 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 judgement when meeting the needs of students.

# KINDERGARTEN PACING GUIDE

KEY:

Color by Domain	NF	OA	CC	GEO	NBT	MD
★ = 1st day of school	U# = Unit launch day	NS = No student day	<span style="color: green;">■</span> Major Work	<span style="color: blue;">□</span> Supporting Work	<span style="color: orange;">●</span> Additional Work	

September				
Mon	Tue	Wed	Thu	Fri
				1
4	5	6 ★	7	8
11	12	13	14 U1	15
18	19	20	21	22
25	26	27	28	29 U2

October				
Mon	Tue	Wed	Thu	Fri
2	3	4	5	6
9	10	11	12	13 NS
16	17 U3	18	19	20
23	24	25	26	27
30	31			

November				
Mon	Tue	Wed	Thu	Fri
		1 U4	2	3
6	7	8	9	10 NS
13	14	15	16	17 U5
20	21	22	23 NS	24 NS
27	28	29	30	

Total LearnZillion Lessons: 145 + 15 Assessments\*

## Reporting Period 1: LearnZillion Units 1-7

**UNIT 1: Rote counting and understanding amount created**  
Lessons: 11 (10+assessment)

■ K.CC.A.1, ■ K.CC.B.4.a, ■ K.CC.B.4.b  
 MP2 - Reason abstractly and quantitatively  
 MP6 - Attend to precision

**UNIT 2: Writing numbers and counting "How many?" within 10**  
Lessons: 11 (10+assessment)

■ K.CC.A.3, ■ K.CC.B.4.b, ■ K.CC.B.5  
 MP2 - Reason abstractly and quantitatively  
 MP3 - Construct viable arguments and critique the reasoning of others  
 MP6 - Attend to precision

**UNIT 3: Classifying and counting objects**  
Lessons: 11 (10+assessment)

■ K.CC.B.5, □ K.MD.B.3, ● K.G.A.1  
 MP1 - Make sense of problems and persevere in solving them  
 MP2 - Reason abstractly and quantitatively  
 MP3 - Construct viable arguments and critique the reasoning of others

**UNIT 4: Understanding and representing addition within 5**  
Lessons: 11 (10+assessment)

■ K.CC.B.4.c, ■ K.OA.A.1  
 MP1 - Make sense of problems and persevere in solving them

December				
Mon	Tue	Wed	Thu	Fri
				1
4	5	6	7	8
11 U6	12	13	14	15
18 NS	19 NS	20 NS	21 NS	22 NS
25 NS	26 NS	27 NS	28 NS	29 NS

January				
Mon	Tue	Wed	Thu	Fri
1 NS	2 NS	3	4	5
8	9	10	11	12 U7
15 NS	16	17	18	19
22	23	24	25	26
29	30 U8	31		

### Winter Kinder Report Cards Notes:

#### Counting & Cardinality

- Compare Numbers (NOT YET TAUGHT)

#### Operations and Algebraic Thinking

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from
  - K.OA.1, K.OA.2, & K.OA.3 introduced to 5
  - K.OA.4 & K.OA.5 (NOT YET TAUGHT)

#### Numbers and Operations in Base Ten

- Working with numbers 11-19 to gain foundations for place value (NOT YET TAUGHT)

### MP4 - Model with mathematics

### UNIT 5: Identifying and describing shapes Lessons: 11 (10+assessment)

 K.G.A.1,  K.G.A.2,  K.G.B.5

MP2 - Reason abstractly and quantitatively  
MP3 - Construct viable arguments and critique the reasoning of others  
MP7 - Look for and make use of structure

### UNIT 6: Adding and subtracting within 5 Lessons: 11 (10+assessment)

 K.OA.A.1,  K.OA.A.2,  K.OA.A.3

MP1 - Make sense of problems and persevere in solving them  
MP4 - Model with mathematics  
MP7 - Look for and make use of structure  
MP8 - Look for and express regularity in repeated reasoning

### UNIT 7: Rote counting to 50 and representing up to 20 objects Lessons: 11 (10+assessment)

 K.CC.A.2,  K.CC.A.3,  K.CC.B.4a,

 K.CC.B.4b

MP2 - Reason abstractly and quantitatively  
MP6 - Attend to precision  
MP7 - Look for and make use of structure

#### Measurement and Data

- Describe and compare measurable attributes (NOT YET TAUGHT)
- Classify objects and count the number of objects in each category (NOT YET TAUGHT)

#### Geometry

- Identify and describe shapes
  - K.G.3 (NOT YET TAUGHT)
- Analyze, compare, create and compose shapes
  - K.G.5 introduced
  - K.G.4 & K.G.6 (NOT YET TAUGHT)

## Reporting Period 2: LearnZillion Units 8-15

February				
Mon	Tue	Wed	Thu	Fri
			1	2 NS
5	6	7	8	9
12	13	14	15 U9	16
19 NS	20	21	22	23
26	27	28		

**UNIT 8:** Describing and comparing measurable attributes  
Lessons: 11 (10+assessment)

● K.MD.A.1, ● K.MD.A.2  
**MP3** - Construct viable arguments and critique the reasoning of others  
**MP5** - Use appropriate tools strategically

**UNIT 9:** Comparing numbers  
Lessons: 11 (10+assessment)

■ K.CC.C.6, ■ K.CC.C.7  
**MP2** - Reason abstractly and quantitatively

March				
Mon	Tue	Wed	Thu	Fri
			1	2
5 U10	6	7	8	9
12	13	14	15	16
19	20 U11	21	22	23
26 NS	27 NS	28 NS	29 NS	30 NS

**UNIT 10:** Understanding addition and subtraction within 10  
Lessons: 11 (10+assessment)

■ K.OA.A.1, ■ K.OA.A.2, ■ K.OA.A.3  
**MP4** - Model with mathematics  
**MP5** - Use appropriate tools strategically  
**MP6** - Attend to precision

April				
Mon	Tue	Wed	Thu	Fri
2 NS	3	4	5	6
9	10	11	12	13 U12
16	17	18	19	20
23	24	25	26	27
30 U13				

**UNIT 11:** Classifying two- and three-dimensional shapes  
Lessons: 11 (10+assessment)

■ K.MD.B.3, ● K.G.A.3, ■ K.G.B.4  
**MP3** - Construct viable arguments and critique the reasoning of others  
**MP7** - Look for and make use of structure

**UNIT 12:** Composing ten  
Lessons: 11 (10+assessment)

■ K.OA.A.4  
**MP7** - Look for and make use of structure  
**MP8** - Look for and express regularity in repeated reasoning

May				
Mon	Tue	Wed	Thu	Fri
	1	2	3	4 NS
7	8	9 U14	10	11
14	15	16	17	18
21	22	23	24 U15	25
28 NS	29	30	31	

June				
Mon	Tue	Wed	Thu	Fri
				1
4	5	6	7	8 NS
11	12	13	14	15 ☆
18	19	20	21	22
25	26	27	28	29

**UNIT 13: Counting to 100 by tens and ones**  
Lessons: 6 (5+assessment)

 K.CC.A.1,  K.CC.A.2

MP7 - Look for and make use of structure  
MP8 - Look for and express regularity in repeated reasoning


**UNIT 14: Developing foundations of place value**

Lessons: 11 (10+assessment)

 K.NBT.A.1

MP4 - Model with mathematics  
MP7 - Look for and make use of structure

**UNIT 15: Modeling and composing shapes**  
Lessons: 11 (10+assessment)

 K.G.B.5,  K.G.B.6

MP4 - Model with mathematics  
MP6 - Attend to precision

**\* Supplemental Resources**

**Unit 16: Solving problems and demonstrating fluency within 5 (10 lessons)**

 K.OA.A.2,  K.OA.A.5

MP1 - Make sense of problems and persevere in solving them  
MP8 - Look for and express regularity in repeated reasoning

# Developing Math Fluency with Kindergarten 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.

<b>Recommended Number Talk Sets</b>
<b><u>Introduction</u></b> (Establishing expectations for Number Talks)
Fluency with Number 3 <ul style="list-style-type: none"><li>● Dot Images</li><li>● Rekenreks Introduction</li><li>● Five-Frames</li></ul>
<b><u>Fall</u></b> (subitizing)
Fluency with Numbers 4-5 <ul style="list-style-type: none"><li>● Dot Images</li><li>● Rekenreks</li><li>● Five-Frames</li></ul>
<b><u>Winter</u></b> (decomposing groups)
Fluency with Numbers 4-8 <ul style="list-style-type: none"><li>● Ten-Frames 4-8</li><li>● Dot Images 6-8</li><li>● Rekenreks 6-8</li><li>● Ten-Frames 6-8</li></ul>
<b><u>Spring</u></b>
Fluency with Numbers 9-10 <ul style="list-style-type: none"><li>● Dot Images</li><li>● Rekenreks</li><li>● Ten-Frames</li></ul>

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 \_\_\_\_\_?

## Practicing Math Fluency with Kindergarten 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	Game Name	Source	Standard(s)
Unit 1	Build It Build Ten	Investigations Other Resource	K.CC - 1, 4abc, 5 K.CC - A/B, K.OA , K.NBT.1
Unit 2	Roll and Record Collect Ten Together Build It Compare	Investigations Investigations Investigations Investigations	K.CC - 1, 3, 4abc, 5  K.CC - 1, 4abc, 5 K.CC - 1, 4abc, 5, 6, 7
Unit 3*	Attribute Block Match Up	Investigations	Coming
Unit 4	Compare Build It Built It, Change It	Investigations Investigations Investigations	K.CC - 1, 4abc, 5, 6, 7 K.CC - 1, 4abc, 5 K.CC - 6, 7
Unit 5*	Attribute Block Match Up	Investigations	Coming
Unit 6	Toss the Chips Racing Bears Double Compare One More, One Fewer	Investigations Investigations Investigations Investigations	K.CC.3, K.OA.3  K.CC.6, K.OA.1 K.OA.2
Unit 7*			
Unit 8*	Towers of 10	Investigations	Coming
Unit 9	Compare (Shake and Spill) Compare	Other Resource Investigations	K.CC - A/B/C K.CC - 1, 4abc, 5, 6, 7
Unit 10	More! Build It, Change It Collect 15 Together Double Compare	Other Resource Investigations Investigations Investigations	K.CC - A/B/C, K.NBT.1 K.CC - 6, 7  K.CC.6, K.OA.1
Unit 11	Attribute Block Match Up		Coming
Unit 12	Toss the Chips Racing Bears Roll and Record 3 Build It, Change It	Investigations Investigations Investigations Investigations	K.CC.3, K.OA.3 K.CC - 3, 4 K.OA - 1, 5 K.CC - 6, 7

	Tens Go Fish	Other Resource	K.CC - A/B, K.OA
Unit 13	Anything But 10!	Other Resource	K.CC - A/B, K.OA , K.NBT.1
Unit 14*	Greater than, less than, equal to	Other Resource	K.CC - A/B/C, K.OA
Unit 15*	Fill the Hexagons	Investigations	K.G.6

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