

Instructional Guide
Grade K – Mathematics
January 2022 through June 2023

Grade K Overview

Module	Standards
M1: Numbers to Ten	K.MD.3, K.CC.3, K.CC.4, K.CC.5, K.OA.3
M2: Two Dimensional and Three-Dimensional Shapes	K.G.1, K.G.2, K.G.3, K.G.4, K.MD.3
M3: Comparison of Length, Weight, Capacity, and Numbers to 10	K.MD.1, K.MD.2, K.CC.4c, K.CC.5, K.CC.6, K.CC.7
M4: Number Pairs, Addition and Subtraction to 10	K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5
M5: Numbers 10–20 and Counting to 100	K.CC.1, K.CC.2, K.CC.3, K.CC.4, K.CC.5, K.NBT.1, K.NBT.3, 1.OA.8, 1.NBT.3
M6: Analyzing, Comparing, and Composing Shapes	K.CC.4d, K.G.1, K.G.2, K.G.4, K.G.5, K.G.6

See PAGE 9 for your January to June PACING

K-8 MATHEMATICS - DIGITAL RESOURCES

	Zearn	Moby Max	i-Ready	First in Math (K-5)	IXL
Purpose	Zearn Math instructional resources are designed to mirror teacher instruction with Eureka/EngageNY.	Moby Max is designed to find and fix learning gaps using the power of personalized learning.	i-Ready provides teachers with individualized data and suggested differentiated instruction to support student learning.	First In Math provides self-paced activities to help students strengthen fact fluency, automaticity, computational thinking, and other critical skills that support STEM readiness.	IXL is a targeted learning tool used to provide personalized action plans and links related to the academic progress and areas of need for each student
District Expectations	<p>Zearn will be used to support grade level instruction. The independent digital lessons will be assigned following teacher instruction.</p> <p>Zearn may also be used for re-teach, in cases where students need review of previous grade level content.</p>	<p>Moby Max will be used to provide intervention in the areas where individual students are struggling.</p> <p>Every student will take the Moby Max diagnostic at the start of the year; providing each student with an individualized plan for learning.</p> <p>Moby Max may also be used to support grade level instruction.</p>	<p>i-Ready will be used as the district's math screener for grades K-8.</p> <p>Every student will take the digital math screener during the three identified testing windows: BOY, MOY and EOY.</p>	<p>First In Math will be used for fluency practice; to master facts, practice procedural skills and engage in problem-solving.</p>	<p>IXL will be used as a district benchmark for all high school math courses <u>and</u> grade 8 Algebra during three identified testing windows: BOY (diagnostic), MOY (snapshot) and EOY (snapshot).</p> <p>Students must also work in IXL diagnostic arena for 10 minutes <u>each week</u> in order to keep their levels and recommendations up to date.</p>
Available supports/webinars	about.zearn.org/school-account-resources password: Zearn2020	https://vimeo.com/mobymax	https://login.i-ready.com/educator/help	https://explore.firstinmath.com/program-content/educator-questions/?cc=us	https://www.ixl.com/userguides

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IMPORTANT Module 3 NOTES:

Based on the *Next Generation Math Standards*, please keep the following upcoming changes in mind:

- *K.MC.1 Clarification of vocabulary.* Describe measurable attributes of an object(s), such as length or weight, using appropriate vocabulary (e.g., small, big, short, tall, empty, full, heavy, and light).
- *K.MD.2 Removed the example (the example could limit comparisons to height and could potentially make students feel badly if they are short).* Directly compare two objects with a measurable attribute in common to see which object has “more of”/ “less of” the attribute and describe the difference.
- *K.CC.B.4c Clarification- mastery not needed.* The word “explore” indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated experiences with these concepts, with immersion in the concrete, are vital. Explore the concept that each successive number name refers to a quantity that is one larger.
- *K.CC.B.5 To provide clarification language and concept; separate distinct skills.*
- *5a Answer counting questions using as many as 20 objects arranged in a line, a rectangular array, and a circle and as many as 10 objects in a scattered configuration, (e.g. “How many _____ are there?”)*
- *5b Given a number from 1-20, count out that many objects.*
- *K.CC.C.6 Clarification of vocabulary.* Identify whether the number of objects in one group is more/ greater than, fewer/less than, or equal/ same to the number of objects in another group, (e.g. by using matching and counting strategies). Include groups with up to ten objects.

Module 3 Vocabulary

Module 3 Vocabulary		
Balance Scale	Capacity	Compare
Endpoint	Heavier Than/ Lighter Than	Enough/ Not Enough
Height	Length	Longer Than/ Shorter Than

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More Than/ Fewer Than	More Than/ Less Than	Taller Than/ Shorter Than
The Same As	Weight	

ENRICHMENT EMBEDDED WITHIN MODULE 3

Attributes:

- Lesson 32: Describe Attributes of Objects

Pattern:

- Lesson 13: Roll and Say 1 More, 1 Less
- Lesson 15: Building 1 More and 1 Less Towers
- Lesson 19: Show me 1 More and 1 Less Towers
- Lesson 23: Finish My Sentence/1 more, 1 less

Classify:

- Lesson 16: Groups of Shapes Activity

Sequencing:

- Lesson 8: Beep Number counting
- Lesson 10: Double 5-Groups activity
- Lesson 29: Tower Flip activity

Logic

- Lesson 1: Tell the Hidden Number fluency activity
- Lesson 2: Make it equal bean activity
- Lesson 4: Compare the length of linking cube sticks to a 5-stick.
- Lesson 5: 5-Groups on the Dot Path activity
- Lesson 7: Roll and Draw 5-Groups activity
- Lesson 20: Building 1 More and 1 Less Trains

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IMPORTANT Module 4 NOTES:

Based on the *Next Generation Math Standards*, please keep the following upcoming changes in mind:

- *K.OA.A.3 Students will have a deeper understanding of addition and subtraction within 10 going into Grade 1. The word “explore” indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated Experiences with these concepts, with immersion in the concrete, are vital. Decompose numbers less than or equal to 5 into pairs in more than one way, record each decomposition by a drawing or equations (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). Explore decomposition within 10.*

Module 4 Vocabulary

Module 4 Vocabulary		
Addition	Addition and Subtraction Sentences (equations)	Make 10
Minus (-)	Number Bond	Number Pairs or Partners
Part	Put Together	Subtraction
Take Apart	Take Away	Whole

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IMPORTANT Module 5 NOTES:

Based on the *Next Generation Math Standards*, please keep the following upcoming changes in mind:

- K.CC.B.4c *Clarification- mastery not needed. The word “explore” indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated experiences with these concepts, with the immersion in the concrete, are vital. Explore the concept that each successive number name refers to a quantity that is one larger.*
- K.CC.B.5 *To provide clarification language and concept; separate distinct skills.*
- 5a. Answer counting questions using as many as 20 objects arranged in a line, a rectangular array, and a circle and as many as 10 objects in a scattered configuration, (e.g. “How many ____ are there?”).
- 5b Given a number from 1 - 20, count out that many objects.
- K.NBT.A.1 *Ensures the concept is well-developed in the concrete before moving to the abstract. The word “explore” indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated experiences with these concepts, with immersion in the concrete, are vital. Explore composing and decomposing of the numbers from 11 to 19 into ten ones and some further ones, (e.g., by using objects or drawings).*

Module 5 Vocabulary

Ten and ____	Ten Ones and Some Ones	Ten Plus
Hide Zero Cards	Counting by Ones	Counting by Tens
Say Ten Counting	Teen Numbers	

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ENRICHMENT EMBEDDED WITHIN MODULE 5

Pattern:

- Lesson 19: Hide Zero for Number to 100

Sequencing:

- Lesson 15: Teen Circular-Counting

Logic

- Lessons: 2-6: Count/group Piles of Ten
- Lessons: 8-9: Separating Ten Ones Inside Teen Numbers
- Lesson: L14: Write Teen Numbers with Arrays
- Lesson: 23: Matching Dot and Number Cards
- Lesson: 24: Help the Frog Catch the Fly, Number Bond Hopping Card Game

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IMPORTANT Module 6 NOTES:

Based on the *Next Generation Math Standards*, please keep the following upcoming changes in mind:

- K.CC.B.4c *Clarification- mastery not needed. The word “explore” indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated experiences with these concepts, with the immersion in the concrete, are vital. Explore the concept of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.*
- K.G.B.5 *For clarification and progression. The example from the Progressions represented the concept more clearly. “Their environment” conveys a connection to students’ experiences. Compose larger shapes from simple shapes (e.g. join two triangles to make a rectangle).*
- K.G.B.6 *Clarification of language. Compose larger shapes from simple shapes (e.g. join two triangles to make a rectangle).*

Module 6 Vocabulary

First, Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth	Above, Below, Beside, In Front Of, Next To, Behind	Circle
Cone	Cube	Cylinder
Face	Flat	Hexagon
Rectangle	Solid	Sphere
Triangle		

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ENRICHMENT EMBEDDED WITHIN MODULE 6

Logic Puzzles:

- Lesson 4: Make a Shape to Find Hidden Numbers
- Lessons 5-8: Create Composite Shapes Using Pattern Blocks

Categories/Sorting:

- Lesson 1: Peek-a-Boo Shapes

Sequencing:

- Lesson 1: If You're Happy and You Know It counting song
- Lesson 5: Finish Line (ordinal numbers)
- Lesson 10: Double 5-Groups activity
- Lesson 29: Tower Flip activity

Logic

- Lesson 1: Tell the Hidden Number fluency activity
- Lesson 2: Make it equal bean activity
- Lesson 4: Compare the length of linking cube sticks to a 5-stick.
- Lesson 5: 5-Groups on the Dot Path activity
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PACING Plan for January 2022 – June 2022

Please note that there will be times throughout the YEAR when you will either be embedding lessons from the previous grade level, omitting lessons at this grade level, and/or combining lessons at this grade level. This is all to ensure that our students have the foundational and grade level conceptual understanding to progress masterfully as the standards outline.

The decisions that were made were based on the progression of content from grade to grade (coherence). Those March - June standards that underlie the mastery of this year's standards were deemed essential and it was determined that they must be embedded in this years' pacing.

Grade Kindergarten				
Quarter 3 - weeks	Quarter 3 - dates	JAN - JUNE PACING	Zearn Fluency Activities	Instructional Notes
i-Ready MOY SCREENING WINDOW (1/23 – 2/17)				
Week 21	1/30 - 2/3	M3: Lessons 23, 24	www.zearn.org/k_activities/122 www.zearn.org/k_activities/40 www.zearn.org/k_activities/178	
Week 22	2/6 - 2/10	M3: Lessons 25, 26	https://www.zearn.org/k_activities/34 https://www.zearn.org/k_activities/38 https://www.zearn.org/k_activities/127	

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Week 23	2/13 - 2/17	M3: Lessons 27, 28	https://www.zearn.org/k_activities/124 https://www.zearn.org/k_activities/120	
Week 24	2/27 - 3/3	M4: Lessons 1/ 2 and 3/4	https://www.zearn.org/k_activities/41 https://www.zearn.org/k_activities/123 https://www.zearn.org/k_activities/128	Combine Lessons 1/2 Similar objective-composing and decomposing to 5. Include fingers and linking cubes from lesson 2 as “objects” for lesson 1 Combine Lessons 3/4 Similar objective-representing story problems with number bonds-combine composition and decomposition
Week 25	3/6 - 3/10	M4: Lessons 5, 6, and 7/13	https://www.zearn.org/k_activities/130 https://www.zearn.org/k_activities/128	Combine Lessons 7/13 Similar objectives-composing, decomposing and adding to 6. Use vertical and horizontal number bonds.
Week 26	3/13 - 3/17	M4: Lessons 8/14, 9/15 and 10	www.zearn.org/k_activities/5 www.zearn.org/k_activities/69	Combine Lessons 8/14 Similar objectives-composing, decomposing and adding to 7. Use vertical and horizontal number bonds Combine Lessons 9/15 Similar objectives-composing, decomposing and adding to 8. Use vertical and horizontal number lines.
Week 27	3/20 - 3/24	M4: Lessons 12, 13 and 16/17	www.zearn.org/k_activities/182 www.zearn.org/k_activities/181 www.zearn.org/k_activities/48	Omit Lesson 11 Concept of horizontal and/or vertical number bond to represent composition/decomposition to 6-8 can be infused into prior lessons Combine Lessons 16/17 -Similar objective with unknown

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Week 28	3/27 - 3/31	M4: Lessons 18 and 19	www.zearn.org/k_activities/189	
Week 29	4/10 - 4/14	M4: Lessons 20 and 21	www.zearn.org/k_activities/135 www.zearn.org/k_activities/186	
Week 30	4/17 - 4/21	M4: Lessons 22/23/24	www.zearn.org/k_activities/51 www.zearn.org/k_activities/53	Combine Lessons 22/23/24 Similar objective-word problems with total unknown up to 8. Focus on decomposing using 5-group drawings and recording with drawing and subtraction equations. Use examples with numbers 6-8.
Quarter 4 – weeks	Quarter 4-dates	JAN-JUNE Pacing	Zearn Fluency Activities	Instructional Notes
Week 31	4/24 - 4/28	M4: Lessons 25/26, 27/28	www.zearn.org/k_activities/64 www.zearn.org/k_activities/61	Combine Lessons 25/26 Similar objective-decomposing 9 using stories, objects, number bonds, fingers and linking cubes. Combine Lessons 27/28 Similar objective-decomposing 10 using stories, objects, number bonds, fingers and linking cubes Combine Lessons 29/30 Similar objective-represent addition word problems to 9 and 10 with 5-group

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Week 32	5/1 - 5/5	M4: Lessons 29/30, 31/32, 33/34	www.zearn.org/k_activities/67 www.zearn.org/k_activities/62	Combine Lessons 31/32 Similar objective-addition word problems up to 9 and 10 Combine Lessons 33/34 Similar objective-subtraction word problems to 10
Week 33	5/8 - 5/12	M4: Lessons 35/36, 37	www.zearn.org/k_activities/65 www.zearn.org/k_activities/63 www.zearn.org/k_activities/187	Combine Lessons 35/36 Similar objective-decompose 9 and 10 using 5-group Combine Lessons 39/40 Similar objective-numbers that make 10 for 1-9. Include 5-group drawing and addition equation. Omit Lesson 41
Week 34	5/15 - 5/19	M4: Lessons 38, 39/40 M5: Lesson 1	www.zearn.org/k_activities/73 www.zearn.org/k_activities/190 www.zearn.org/k_activities/71	
i-Ready EOY SCREENING WINDOW (5/22 – 6/16)				
Week 35	5/22 - 5/26	M5: Lessons 2 /3, 4 /5, 6/7	www.zearn.org/k_activities/95 www.zearn.org/k_activities/92 www.zearn.org/k_activities/198	Combine lessons 2/3 Similar objective-count and circle 10 objects within 10-20 objects and describe as 10 ones and ___ones Combine Lessons 4/5 Similar objective-count straws say 10 way up to 20 Combine Lessons 6/7

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				Similar objective-model and write numbers 10-20 using place value, Hide Zero and number bonds
Week 36	5/30 - 6/2	M5: 8/9, 11, 12	www.zearn.org/k_activities/94 www.zearn.org/k_activities/87 www.zearn.org/k_activities/100	Combine Lessons 8/9 Similar objective-model and draw teen numbers Omit Lesson 10-build rekenrek to 20.
Week 37	6/5 - 6/9	M5: Lessons , 13/14, 15/16, 17/18	www.zearn.org/k_activities/97 www.zearn.org/k_activities/89 www.zearn.org/k_activities/105	Combine Lessons 13/14 Similar objective-show, count and write answers to how many questions up to 20 (all different configurations) Combine Lessons 15/16 Similar objective-counting by 10s and 1s with say 10 way and regular counting Combine Lessons 17/18 Similar objective-count across tens by ones to 100 with and without objects
Week 38	6/12 - 6/16	M5: Lessons 20/21, 23 M6: Lesson 1 /2	www.zearn.org/k_activities/98 www.zearn.org/k_activities/91 www.zearn.org/k_activities/200	Omit Lesson 19-labeled as optional exploration activity Similar objectives- represent teen numbers as addition and as 10 ones and some ones Combine Lessons 20/21 Omit Lessons 22 and 24 Combine Lessons 1/2

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Week 39	6/20 - 6/23	M6: Lessons 3, 5, 6, 7	www.zearn.org/k_activities/201 www.zearn.org/k_activities/204	
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