

Instructional Guide
Grade 5 – Mathematics
September 2022 through January 2023

Grade 5 Overview

Module	Standards
M1: Whole Number and Decimal Fraction Place Value to the One-Thousandths	5.NBT.1, 5.NBT.2, 5.NBT.3a, 5.NBT.3b, 5.NBT.4, 5.NBT.7, 5.MD.1
M2: Multi-digit Whole Number and Decimal Fraction Operations: Reasoning About Partial Products and Quotients	5.OA.1, 5.OA.2, 5.NBT.1, 5.NBT.2, 5.NBT.5, 5.NBT.6, 5.NBT.7, 5.MD.1
M3: Addition and Subtraction of Fractions	5.NF.1, 5.NF.2
M4: Multiplication and Division of Fractions and Decimal Fractions	5.OA.1, 5.OA.2, 5.NBT.7, 5.NF.3, 5.NF.4a, 5.NF.5, 5.NF.6, 5.NF.7, 5.MD.1, 5.MD.2
M5: Addition and Multiplication with Volume and Area	5.NF.4b, 5.MD.3, 5.MD.4, 5.MD.5, 5.G.3, 5.G.4
M6: Graph Points on the Coordinate Plane to Solve Problems	5.OA.2, 5.OA.3, 5.G.1, 5.G.2

See PAGE 6 for your September to January 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 1 Notes:

Based on the *Next Generation Math Standards (to be implemented THIS YEAR)*, please be aware of the following:

- **5.NBT.2** Clarification in the wording by reordering the sentences because in order to “multiply a number by a power of 10” you have to “use whole number exponents to denote powers of 10”.
- **5.NBT.3a** Clarification in the wording to include “or equivalent form using decimals for the unit fractions”.
- **5.NBT.7** Clarification in the wording to include “Division problems are those that allow for the use of concrete models or drawings, strategies based on properties of operations, and/or the relationship between operations.”
- **5.MD.1** Clarification in the wording to include “when the conversion factor is given”.

Module 1 Vocabulary

Equation	Exponent	Millimeter	Thousandths
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IMPORTANT Module 2 NOTES:

Based on the *Next Generation Math Standards (to be implemented THIS YEAR)*, please be aware of the following:

- **5.OA.1** Clarification in wording “Apply order of operations to evaluate numerical expressions involving only parentheses and/or the four operations.”
- **5.OA.2** Clarification in wording to include “Use whole number exponents to denote powers of 10”.
- **5.NBT.2** Clarification in the wording of the standard to reorder sentences for standard to begin with “Use whole number exponents to denote powers of ten”, since you need to do that before you “multiply a number by a power of 10”.
- **5.NBT.7** Clarification in the wording of the standard to include “Division problems are those that allow for the use of concrete models or drawings, strategies based on properties of operations, and/or the relationship between operations.”
- **5.MD.1** Clarification in the wording of the standard to include “when the conversion factor is given” because emphasis should be on understanding how conversions work.

Module 2 Vocabulary

Decimal Fraction

Multiplier

Parentheses

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IMPORTANT Module 3 Notes:

Based on the *Next Generation Math Standards (to be implemented THIS YEAR)*, please be aware of the following:

- N/A

Module 3 Vocabulary

Benchmark Fraction

Like Denominator

Unlike Denominator

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IMPORTANT Module 4 Notes:

Based on the *Next Generation Math Standards (to be implemented THIS YEAR)*, please be aware of the following:

- N/A

Module 4 Vocabulary

Decimal Divisor

Multiplier

Simplify

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PACING Plan for September 2022 - January 2023

Grade 5				
Quarter 1 - weeks	Quarter 1 -dates	Sept - Jan PACING	Zearn Digital Independent Lessons	Instructional Notes
Week 1	9/6 - 9/9			
Week 2	9/12 - 9/16	M1: Lesson 1/2, 3, 4	M1: Lesson 1, 2,3, 4	<p>Combine Grade 5, Module 1, Lessons 1-2. With Lesson 1, complete the concept development for Lesson 1, problems 1, 2, 3, and 4, but extend by showing that moving decimal places happens the same way when multiplying and dividing. Compare answers when moving decimal places to multiplying and dividing by multiples of 10. They are the same</p> <p>If students are struggling: Grade 4 Module 6 Lessons 4-6 can be used to help students lacking the prior knowledge of fractions/decimals before beginning Grade 5 with decimal operations. View student diagnostic reports in Zearn and revisit any additional concepts students struggled with.</p> <p>In regards to Next Generation standard updates, students will convert measurements when the conversion factor is given. Known conversion factors from Gr. 4 (ft, in; km, m, cm; hr, min, sec) will not be given, but all others will.</p>

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Week 3	9/19 - 9/3	M1: Lesson 5/6, 7, 8	M1: Lesson 5, 6, 7, 8	<p>Combine Grade 5, Module 1, Lessons 5-6. Teach Lesson 5 concept development and incorporate how to compare which is greater than or less than. For example, in problem 1, when writing out 1 thousandth and 3 thousandths, compare the two to decide which is greater using symbols. If more practice is needed, use Lesson 6 Problem Set, # 2.</p> <p>In regard to the Next Generation updates (in notes of standard), focus on proper formation of fractional notation, such as writing $\frac{1}{100}$ opposed to 1/100.</p> <p>If students are struggling: See Grade 4, Module 6, Lessons 9-10. Use Grade 4, Mission 6, Lessons 1-3 in Zearn as a supplement for students struggling with 5.NBT.3.</p>
Week 4	9/26 - 9/30	M1: Lesson 9/10, 11, 12	M1: Lesson 9, 10, 11, 12	<p>Combine Grade 5, Module 1, Lessons 9-10. When combining Lesson 9-10, teach that you set up addition and subtraction of decimals the same way. When teaching Lesson 9, consider adding two numbers, then teaching how to subtract the two as well.</p> <p>Suggestion - Lesson 9, Problem Set #2 and Lesson 10, Problem Set # 2.</p> <p>In regards to Next Generation updates, decimals operations can be solved using a standard algorithm. Limit all decimal operations to hundredths (omit any problems that go to the thousandths place).</p>

i-Ready BOY SCREENING WINDOW (10/3-10/28)

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Week 5	10/3 - 10/7	M1: Lesson 13, 14, 15 (embed 16)	M1: Lesson 12, 14, 15, 16	Embed Lesson 16 problems into Lessons 13-15, because all lessons focus on the skill of dividing decimals. Suggestion - use Lesson 16, Problem Set #1 with Lesson 13, use Lesson 16, Problem Set #2 with Lesson 14, and use Lesson 16, Problem Set #5 with Lesson 15. Lesson 16 is the end of Module 1. This is a good time to give the End of Module Assessment. In regards to Next Generation updates, decimals operations can be solved using a standard algorithm. Limit all decimal operations to hundredths (omit any problems that go to the thousandths place).
Week 6	10/11 -10/14	M2: Lesson 1, 2, 3	M2: Lesson 1, 2, 3	
Week 7	10/17 - 10/21	M2: Lesson 4, 5, 6/7	M2: Lesson 4, 5, 6, 7	Combine Lessons 6-7 because they have the same objective and address the same standards. When combining Lessons 6 and 7, choose examples from either or both for concept development sections. Suggestion - use Problem Set, Lesson 6, #1, to show how you get the same answer solving both ways, and Problem Set, Lesson 7, # 4 and 5 allowing them to choose a method to solve. Consider embedding Lesson 9 word problems in Lessons 5-7. Suggestion - embed Lesson 9, Problem Set #4 when teaching Lesson 5, Lesson 9, Problem Set #2 when teaching Lessons 6-7, In regard to Next Generation updates, Lessons 6 and 7 specify area model and/or standard algorithm. Once exposed, in further lessons, in practice that specifies a method, students should choose their preferred instead
Week 8	10/24 - 10/28	M2: Lesson 8, 9, 10	M2: Lesson 8, 9, 10	Consider embedding Lesson 9 word problems in Lessons 8. Suggestion - embed Lesson 9, Problem Set #1 when teaching Lesson 8.
Week 9	10/31 - 11/4	M2: Lesson 11, 12, 13	M2: Lesson 11, 12, 13	In regards to Next Generation updates, conversion factors will need to be given for any conversions besides ft, in; km, m, cm; hr, min, sec.
Week 10	11/7 - 11/10	M2: Lesson 14, 15	M2: Lesson 14, 15	In regards to Next Generation updates, conversion factors will need to be given for any conversions besides ft, in; km, m, cm; hr, min, sec.

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Quarter 2 - weeks	Quarter 2 -dates	Sept - Jan PACING	Zearn Digital Independent Lessons	Instructional Notes
Week 11	11/14 – 11/18	M2: Lesson 16, 17/18, 19	M2: Lesson 16, 17, 18	Combine lessons 17-18. Lessons 17 and 18 address the same standards and have the same objective. Suggestion – use Lesson 17, Problem Set #1 and Lesson 18, Problem Set #3-5 as time allows. In regards to Next Generation updates, students are introduced to different strategies, but can use a standard algorithm/ strategy when solving instead of one being specified.
Week 12	11/21 – 11/23	M2: Lesson 20, 21	M2: Lesson 20, 21	
Week 13	11/28 - 12/2	M2: Lesson 22, 23, 24	M2: Lesson 22, 23, 24	
Week 14	12/5 -12/9	M2: Lesson 25, 26, 27	M2: Lesson 25, 26, 27	Combine Lessons 24-29 by embedding word problems from Lessons 28 and 29 into Lessons 24-27. Suggestion - teach Lesson 24 and embed estimating the answer using basic facts into each problem. Use Lesson 24 Problem Set #1, Lesson 25 Problem Set #1, and Lesson 28 Problem Set #1. Lessons 26 and 27 have the same objectives and address the same standards. Teach Lesson 26, then use Lesson 26 Problem Set #2, Lesson 27 Problem Set #2, and Lesson 29 Problem Set, #1. Lesson 29 is the end of Module 2. This is a good time to give the End of Module Assessment.
Week 15	12/12-12/16	M3: Lesson 1/2, 3/4	M3: Lesson 1, 2, 3, 4	Combine Lessons 1-2 by embedding examples from Lesson 2 Problem Set as Lessons 1-2 address the same skills and standards with increasing difficulty. Suggestion: Combine Lesson 1-2 by teaching Lesson 1 with examples for teaching adding fractions with like denominators on a number line from Lesson 1, #1, and 2 Problem Set and #1, and #2 from the Lesson 2 Problem Set. Combine Lessons 3-4 by embedding examples from Lesson 4 problem set as lessons 3-4 address the same skills and standards with increasing difficulty. Suggestion: Combine Lesson 3-4 by teaching Lesson 3,

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				Problem Set, #1, and Problem Set #1-2.
Week 16	12/19 -12/23	M3: Lesson 5/6, 7	M3: Lesson 5, 6, 7	Grade 5 – Module 3 Lessons 5/6, 7, Mission 3: Lesson 6, 7, 8 Combine Lessons 5-6 as both Lessons address the same standards and skills with increasing difficulty. Suggestion: Teach Lesson 5. Add questions #1-2 from Problem Set 6. Suggestion: This would be a good time to give the Mid-Module Assessment.
Week 17	1/3 - 1/6	M3: Lesson 9, 10, 11	M3: Lesson 9, 10, 11	
Week 18	1/9-1/13	M3: Lesson 12, 13, 14	M3: Lesson 12, 13, 14	
Week 19	1/17 – 1/20	M3: Lesson 15, 16	M3: Lesson 15, 16	Lesson 16 is the end of Module 3. This is a good time to give the End of Module Assessment.
i-Ready MOY SCREENING WINDOW (1/23-2/17)				
Week 20	1/23 – 1/27	M4: Lesson 1, 2/3, 4/5	M4: Lesson 1, 2, 3, 4, 5	Combine Lessons 2 and 3 as they cover the same topic and address the same standards of interpreting fractions as division. Suggestion: Teach lesson 2, Complete Lesson 2 Problem Set #1, and 4 and embed lesson 3 Problem Set #1, and 2. Combine lessons 4 and 5. Suggestion: Teach Lesson 4. Lesson 4 uses diagrams and Lesson 5 has you apply what was learned to solve word problems. Use Problems Set 4, #1-2 and embed Problem Set 5, #1 and 4.