2021-2022 SCOPE & SEQUENCE RECOMMENDED ADJUSTMENTS

Grade 4 Mathematics

The purpose of this document is to support teachers and leaders in making adjustments to the Fishtank Math Curriculum for the 2021-2022 school year. In developing the guidelines, we consulted Student Achievement Partners' 2020–21 Priority Instructional Content in English Language Arts/Literacy and Mathematics[1] as well as incorporated knowledge of the progressions of mathematical content as they unfold in the Fishtank Math Curriculum. The recommendations aim to identify opportunities where additional, targeted remediation can occur, while ensuring a deep focus on grade-level content. We recognize that while the school experience over the past year and a half has undoubtedly varied from student to student, this pandemic has magnified many existing inequities in educational access and opportunity. Our guidance for curricular adjustments aims to preserve deep engagement with grade-level content which we believe is critical for equitable instruction for all students.

Knowing that additional time will be needed to address unfinished learning and that pacing will be important, the guidance in this document serves to:

1. Highlight critical grade-level content that should be prioritized,
2. Identify opportunities where lessons can be reduced, combined, or eliminated in ways that will minimize negative impact on student progress and preserve grade-level priorities, and
3. Identify specific places where strong connections to prior grade-level work are beneficial to diagnose and integrate into the curriculum.

These guidelines are not designed as strict instructions on how to adjust the curriculum. Rather, they are meant to support teachers in making the curricular decisions that are right for their students. In particular, this resource provides some guidance around incorporating prior grade-level work based on "just-in-time" content connections, but it does not specify how deep to go into that work or how long to spend on it, as that type of diagnosis and planning will be most effective at the individual level. As noted in the document, our Pre-Unit Assessments, available to Fishtank Plus users, is one resource that can support this diagnosis and curriculum integration. Teachers can also create their own diagnostic assessments using the standard connections mentioned in this resource as well as the foundational standards indicated on the unit page for each unit.

[1] Student Achievement Partners notes that while their documents were created for the 2020-2021 academic year, they remain helpful for those setting academic priorities for the 2021-2022 school year. Given that these resources have not changed, our recommendations remain the same as they were for 2020-2021.

Unit 1 Place Value, Rounding, Addition and Subtraction

Topics	*Cluster(s)*	*Recommendations*
A: Place Value of Multi-Digit Whole Numbers	4.NBT.A	Consolidate or eliminate Lessons 1-3. Pre-unit assessment might inform what can be skipped.
B: Comparing Multi-Digit Whole Numbers	4.NBT.A	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
C: Rounding Multi-Digit Whole Numbers	4.NBT.A	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
D: Multi-Digit Whole Number Addition	4.NBT.B	Do not eliminate or consolidate lessons.
E: Multi-Digit Whole Number Subtraction	4.NBT.B	Do not eliminate or consolidate lessons. In relation to fluency expectations for subtracting multi-digit numbers, emphasize problems with only one regrouping step (which happens in Lesson 16, when they encounter up to 2 decompositions).
F: Addition and Subtraction Word Problems	4.NBT.B 4.OA.A	Do not eliminate or consolidate lessons.

Unit 2 Multi-Digit Multiplication

Consider incorporating fluency expectations of 3.OA.C.7 by giving additional practice sets related to products of single digit factors and related quotients (with unknowns in all positions) into the grade 4 work on multi-digit multiplication and division. Pre-unit assessment may be valuable in determining the extent to which this is needed. There are no fluency expectations for multi-digit multiplication or division in Grade 4; repetitive fluency exercises are not required.

Topics	*Cluster(s)*	*Recommendations*
A: Multiplicative Comparison	4.OA.A	Do not eliminate or consolidate lessons.
B: Multiplication of Up to Four-Digit Whole Numbers by One-Digit Whole Numbers	4.NBT.B	Consider consolidating practice from Lessons 4-10 to reduce the amount of repetitive fluency exercises.
C: Multiplication of Two-Digit Whole Numbers by Two-Digit Whole Numbers	4.NBT.B	Consider consolidating practice from Lessons 11-15 to reduce the amount of repetitive fluency exercises.
D: Multi-Step Word Problems	4.OA.A	Do not eliminate or consolidate lessons.

Unit 3 Multi-Digit Division

Consider incorporating fluency expectations of 3.OA.C.7 by giving additional practice sets related to products of single digit factors and related quotients (with unknowns in all positions) into the grade 4 work on multi-digit multiplication and division. Pre-unit assessment may be valuable in determining the extent to which this is needed. There are no fluency expectations for multi-digit multiplication or division in Grade 4; repetitive fluency exercises are not required.

Topics	*Cluster(s)*	*Recommendations*
A: Understanding and Interpreting Remainders	4.OA.A	Do not eliminate or consolidate lessons.
B: Division of Up to Four-Digit Whole Numbers by One-Digit Whole Numbers	4.NBT.B	Consider consolidating practice from Lessons 9-15 in order to reduce the amount of repetitive fluency exercises.
C: Multi-Step Word Problems and Patterns	4.OA.A 4.OA.C	Eliminate Lessons 14-16.

Unit 4 Fraction Equivalence and Ordering

Topics	*Cluster(s)*	*Recommendations*
A: Factors and Multiples	4.OA.C	Consider incorporating opportunities to solidify the fluency expectations of 3.OA.C.7 by giving additional practice sets related to products of single digit factors and related quotients (with unknowns in all positions). Pre-unit assessment may be valuable in determining the extent to which this is needed.
B: Equivalent Fractions	4.NF.A	Consider incorporating some foundational work on simple equivalent fractions (3.NF.A.3). Pre-unit assessment may be valuable in determining the extent to which this is needed.
C: Comparing and Ordering Fractions	4.NF.A	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.

Unit 5 Fraction Operations

Emphasize reasoning with unit fractions to determine sums and products, not committing calculation rules to memory or engaging in repetitive fluency exercises. Consider incorporating some foundational work on the meaning of the unit fraction (3.NF.A.1 & 2), especially through partitioning the whole on a number line diagram. Pre-unit assessment may be valuable in determining the extent to which this is needed.

Topics	*Cluster(s)*	*Recommendations*
A: Building, Adding, and Subtracting Fractions Less Than or Equal to 1	4.NF.B	Do not eliminate or consolidate lessons.
B: Building, Adding, and Subtracting Fractions Less Than or Equal to 2	4.NF.B	Do not eliminate or consolidate lessons.
C: Building, Adding, and Subtracting Fractions More Than 2	4.NF.B	Do not eliminate or consolidate lessons.
D: Multiplication of Fractions	4.NF.B	Do not eliminate or consolidate lessons.
E: Line Plots	4.MD.B	Consider consolidating Lessons 21 and 22 in order to focus on strongly reinforcing the fraction work of this grade.

Unit 6 Decimal Fractions

Topics	*Cluster(s)*	*Recommendations*
A: Understanding Tenths	4.NF.C	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
B: Understanding Tenths and Hundredths	4.NF.C	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
C: Decimal Comparison	4.NF.C	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
D: Decimal Addition	4.NF.C	Do not eliminate or consolidate lessons. Time spent on instruction and practice should NOT be reduced.
E: Money as a Decimal Amount	4.MD.A	Consolidate Lessons 13 and 14 or consider incorporating this work into Topic D above.

Unit 7 Unit Conversions

No special considerations. Time spent on instruction and practice should not exceed what would be spent in a typical year.

Topics	*Cluster(s)*	*Recommendations*
A: Metric Unit Conversion	4.MD.A	
B: Customary Unit Conversion	4.MD.A	
C: Fraction and Decimal Unit Conversions	4.MD.A	

Unit 8 Shapes and Angles

Topics	*Cluster(s)*	*Recommendations*
A: Lines and Angles	4.G.A	Consolidate Lessons 1 and 2 or limit the amount of required student practice. Consolidate Lessons 3 and 4.
B: Measures of Angles	4.MD.C	Do not eliminate or consolidate lessons. Emphasize the foundational understanding of a one-degree angle as a unit of measure and use that as the basis for measuring and drawing angles with protractors.
C: Measures of Adjacent Angles	4.MD.C	Eliminate Lessons 11-13.
D: Shapes and Lines of Symmetry	4.G.A	Consolidate Lessons 14 and 15. Consolidate Lessons 16 and 17. Consider eliminating Lesson 18.