

Grade 4 Mathematics Priority Instructional Content for the 2020–21 School Year

The Mathematics Priority Instructional Content for the 2020–21 School Year (Mathematics Instructional Priorities) is designed to support decisions about how to elevate some of the most important mathematics at each grade level in the coming school year while reducing time and intensity for topics that are less integral to the overall coherence of college- and career-ready standards.

At each grade level from kindergarten through grade 8, the Mathematics Instructional Priorities name the grade-level mathematics that is of highest priority at each grade; provide a framework for strategically drawing in prior grade-level content that has been identified as essential for supporting students' engagement with the most important grade-level work; and suggest ways to reduce or sometimes eliminate topics in a way that minimizes the impact to overall coherence. In using this guidance, decision makers should thoughtfully consider in their unique context the likely implications of the spring 2020 disruption as decisions are made to select supports to ensure that students are able to successfully engage with the grade-level content. Decision makers should also bear in mind that while this document articulates content priorities, elevating the Standards for Mathematical Practice in connection with grade-level content is always a priority.

At each grade level, recommendations are provided for facilitating social, emotional, and academic development (SEAD) in mathematics. These recommendations stress themes of discourse, belonging, agency and identity and can either be applied across grades (even if only listed in one) or they can be modified to fit different grades. These themes of discourse, belonging, agency, and identity are integral to the Standards of Mathematical Practice and the language in the recommendations reflects this connection.

The 2020–21 school year presents a unique set of opportunities and challenges due to the disruption to instruction in spring 2020 as well as the uncertainty associated with the 2020–2021 school year. The Mathematics Instructional Priorities are provided in response to these conditions. They are not criteria, and they do not revise the standards. Rather, they are potential ways, and not the only ways possible, to help students engage deeply with grade-level mathematics in the 2020–21 school year.

The Mathematics Instructional Priorities do not stand alone but are to be used in conjunction with college- and career-ready standards. One reason for this is that codes such as 4.NBT.A must be traced back to the standards in order to see the language to which they refer. The Mathematics Instructional Priorities do not reiterate what the standards already say—even in cases where the specific language of a standard is fundamentally important to a high-quality aligned curriculum. Nor do the Mathematics Instructional Priorities mention every opportunity the standards afford to make coherent connections within a grade or between one grade and another—again, even when those connections are fundamentally important and are the basis for the guidance given. Therefore, the Mathematics Instructional Priorities will be used most powerfully in cross-grade collaboration among educators who know the standards well and can use existing resources such as the *Progressions* documents and other resources listed in the Appendix.

The considerations repeatedly use several verbs, such as *combine*, *integrate*, etc. The verbs most commonly used in the considerations are italicized below and defined in a glossary in the Appendix. Note that content is designated at the cluster level when the guidance refers to the cluster and its standards, and at the standard level in cases where guidance varies within a cluster.

Considerations for Addressing PRIORITY Grade-Level Content	
The clusters and standards listed in this table name the priority instructional content for grade 4. The right-hand column contains approaches to shifting how time is dedicated to the clusters and standards in the left-hand column.	
Clusters/Standards	Considerations
4.OA.A	No special considerations for curricula well aligned to analyzing and solving multi-step word problems with the four operations (4.OA.3), and extending multiplicative thinking beyond grade 3 to solve problems involving comparison and the idea of times-as-many/times-as-much (4.OA.2).
4.NBT.A	No special considerations for curricula well aligned to generalizing place value understanding, as detailed in this cluster. Time spent on instruction and practice should NOT be reduced.
4.NF.A	No special considerations for curricula well aligned to fraction equivalence and ordering, as detailed in this cluster. <i>Incorporate</i> some foundational work on simple equivalent fractions (3.NF.A.3). Time spent on instruction and practice should NOT be reduced.
4.NF.C	No special considerations for curricula well aligned to concepts of decimal fractions, as detailed in this cluster. Time spent on instruction and practice should NOT be reduced.

Considerations for Addressing REMAINING Grade-Level Content	
The clusters and standards listed in this table represent the remainder of grade 4 grade-level content. The right-hand column contains approaches to shifting how time is dedicated to the clusters and standards in the left-hand column.	
Clusters/Standards	Considerations
4.OA.B	<i>Incorporate</i> 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) into the grade 4 work of gaining familiarity with factors and multiples.

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4.OA.C	<i>Eliminate</i> lessons on generating and analyzing patterns.
4.NBT.B*	In relation to fluency expectations for subtracting multi-digit numbers, <i>emphasize</i> problems with only one regrouping step (4.NBT.B.4), in order to reduce algorithmic complexity. <i>Incorporate</i> 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 (4.NBT.5 & 6). (Note that there are no fluency expectations for multi-digit multiplication or division in grade 4; repetitive fluency exercises are not required.)
4.NF.B*	<i>Emphasize</i> reasoning with unit fractions to determine sums and products, not committing calculation rules to memory or engaging in repetitive fluency exercises. <i>Incorporate</i> 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.
4.MD.A.1	No special considerations for curricula well aligned to measurement conversion, as detailed in this standard. Time spent on instruction and practice should not exceed what would be spent in a typical year.
4.MD.A.2 4.MD.A.3	<i>Combine</i> lessons on problems involving measurement, except for those on measurement conversion (see 4.MD.A.1). <i>Limit</i> the amount of required student practice.
4.MD.B	<i>Eliminate</i> lessons and problems that do not strongly reinforce the fraction work of this grade (4.NF).
4.MD.C.5 4.MD.C.6	<i>Emphasize</i> the foundational understanding of a one-degree angle as a unit of measure (4.MD.C.5a) and use that as the basis for measuring and drawing angles with protractors (4.MD.C.6).
4.MD.C.7	<i>Eliminate</i> lessons on recognizing angle measure as additive.
4.G.A	<i>Combine</i> lessons on drawing and identifying lines and angles and classifying shapes by properties. <i>Limit</i> the amount of required student practice.

**While these clusters are Major Work of the Grade, during the 2020–21 school year, it is recommended that they receive lighter treatment in favor of other priority instructional content.*

Facilitate Social, Emotional, and Academic Development (SEAD) ¹³ Through Grade-Level Content	
<p>The left-hand column contains sample actions for how SEAD can be effectively integrated into grade-level mathematics instruction, in connection with Standards for Mathematical Practice named in the right-hand column. Efforts should be made to facilitate SEAD even in remote learning environments, using synchronous and asynchronous approaches and the capabilities afforded by remote learning technologies.</p>	
Sample Actions	Connection to Standards for Mathematical Practice (SMP)
<p>Bring in students’ funds of knowledge and past mathematical experiences by providing access to a wide variety of math tools when working on grade-level math (for example, providing number lines when studying equivalent fractions).</p>	<p>MP5: Use appropriate tools strategically.</p>
<p>Position students as mathematically competent by creating a safe space for students to share their developing reasoning (for example, when they make conjectures and arguments about whole numbers to determine whether they apply to fractions and decimals).</p>	<p>MP3: Construct viable arguments and critique the reasoning of others.</p>
<p>Establish clear learning goals that promote mathematical learning as just, equitable, and inclusive. For example, in work with subtraction of multi-digit numbers, begin with one regrouping step using evidence of student learning to determine next steps (exit tickets, assigned problem).</p>	<p>MP7: Look for and make use of structure.</p>

¹³ Sample SEAD actions contribute to students’ sense of belonging and safety, efficacy, value for effort and growth, as well as a sense of engagement in work that is relevant and culturally responsive. The actions can be modified to fit any grade, K–8, by considering the content of that grade level. See other grade-level Mathematics Instructional Priorities documents for additional samples.