

## Grade 5 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 5.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.

While the grade-level guidance isn’t specific to any math program or set of programs, an examination of a selection of curriculum scope and sequence documents informed the recommendations, especially recommendations about when and how to integrate prior-grade concepts into the current grade. The guidance does not list all possible prior-grade content relevant to the current grade, but instead concentrates the recommendations on the most critical prior-grade connections, with greater emphasis on that content which was likely taught during the last third of the 2019–20 school year based on the scope and sequence analysis.

### Where to focus Grade 5 Mathematics?

**CCSS WHERE TO FOCUS GRADE 5 MATHEMATICS**

This document shows where students and teachers should spend the large majority of their time in order to meet the expectations of the Standards.

Not all content in a given grade is emphasized equally in the Standards. Some clusters receive greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice.

To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade.

Students should spend the large majority<sup>1</sup> of their time on the major work of the grade. **M** Supporting work **S** (and, where appropriate, additional work **A**) can engage students in the major work of the grade.<sup>2,3</sup>

**MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR GRADE 5**  
Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

Key: **M** Major Clusters **S** Supporting Clusters **A** Additional Clusters

- 5.OA.A **M** Write and interpret numerical expressions.
- 5.OA.B **M** Analyze patterns and relationships.
- 5.NF.A **M** Understand the place value system.
- 5.NF.B **M** Perform operations with multi-digit whole numbers and with decimals to hundredths.
- 5.NF.A **M** Use equivalent fractions as a strategy to add and subtract fractions.
- 5.NF.B **M** Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
- 5.MD.A **M** Convert like measurement units within a given measurement system.
- 5.MD.B **M** Represent and interpret data.
- 5.MD.C **M** Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
- 5.G.A **M** Graph points on the coordinate plane to solve real-world and mathematical problems.
- 5.G.B **M** Classify two-dimensional figures into categories based on their properties.

**HIGHLIGHTS OF MAJOR WORK IN GRADES K–8**

K–2	Addition and subtraction – concepts, skills, and problem solving; place value
3–5	Multiplication and division of whole numbers and fractions – concepts, skills, and problem solving
6	Ratios and proportional relationships; early expressions and equations
7	Ratios and proportional relationships; arithmetic of rational numbers
8	Linear algebra and linear functions

**REQUIRED FLUENCIES FOR GRADE 5**

5.NF.B.5	Multi-digit multiplication
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College- and career-ready mathematics standards have important emphases at each grade level, which for grade 5 are highlighted in this [Focus Document](#). The considerations for the 2020–21 school year that follow are intended to be a companion to the Focus Document. Users should have both documents in hand, as well as a copy of grade-level standards, when considering these recommendations.

For the 2020–21 school year, prioritization of grade-level mathematical concepts combined with some incorporation of prior-grade knowledge and skills will be essential to support all students in meeting grade-level expectations. For these unique times, Student Achievement Partners has developed additional guidance above and beyond what is communicated through the major work designations. As described at greater length on the previous page, the following tables:

- Name priority instructional content at each grade;
- Provide considerations for addressing grade-level content in a coherent way;
- Articulate selected content from the prior grade that may be needed to support students in fully engaging with grade-level mathematics;
- Suggest where adaptations can be made to allow for additional time on the most important topics; and
- Provide suggestions for ways to promote social, emotional, and academic development (SEAD) in grade-level mathematics learning, often through the Standards for Mathematical Practice.

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 <b>PRIORITY</b> Grade-Level Content	
The clusters and standards listed in this table name the priority instructional content for grade 5. 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
5.NBT.A	Allow for time to develop students' understanding of the foundational work of decimal fractions (4.NF.C) to support entry into understanding the place value system with decimals (5.NBT.A.1, 3, and 4).
5.NBT.B	<i>Incorporate</i> foundational work on multiplying and dividing multi-digit whole numbers (4.NBT.B.5 & 6) to support students' work operating with multi-digit whole numbers and decimals (5.NBT.B). In relation to fluency expectations for multiplying multi-digit numbers, <i>eliminate</i> problems in which either factor has more than three digits.
5.NBT.B.7	<i>Incorporate</i> students' understanding of decimal fractions (4.NF.C) to support entry into the grade 5 work of operations with decimals.
5.NF.A	<i>Incorporate</i> foundational work on equivalent fractions (4.NF.A.1) and on the conceptual understanding underlying fraction addition (4.NF.B.3) to support students' work on adding and subtracting fractions with unlike denominators (5.NF.A).
5.NF.B	<i>Incorporate</i> foundations for multiplying fractions by whole numbers (4.NF.B.4) to support students' work in multiplying fractions and whole numbers by fractions (5.NF.4).
5.MD.C	No special considerations for curricula well aligned to the work of volume in grade 5, as detailed in this cluster. Time spent on instruction and practice should NOT be reduced.
5.G.A	<i>Incorporate</i> foundational understandings of number lines (such as found in the work of 4.NF) into the work of extending number lines to the coordinate plane, as detailed in this cluster. <i>Emphasize</i> interpreting coordinate values of points in the context of a situation.

### Considerations for Addressing **REMAINING** Grade-Level Content

The clusters and standards listed in this table represent the remainder of grade 5 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
5.OA.A	<i>Combine</i> lessons on writing and interpreting numerical expressions in order to reduce the amount of time spent on this topic.
5.OA.B	<i>Eliminate</i> lessons and problems on analyzing relationships between numerical patterns.
5.MD.A	<i>Combine</i> lessons on converting measurement units in order to reduce the amount of time spent on this topic.
5.MD.B	<i>Eliminate</i> lessons and problems on representing and interpreting data using line plots that do not strongly reinforce the fraction work of this grade (5.NF).
5.G.B	<i>Combine</i> lessons on classifying two-dimensional figures into categories based on properties in order to reduce the amount of time spent on this topic.

<b>Facilitate Social, Emotional, and Academic Development (SEAD)<sup>14</sup> Through Grade-Level Content</b>	
<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>	
<b>Sample Actions</b>	<b>Connection to Standards for Mathematical Practice (SMP)</b>
Build community by providing group tasks to develop sense making and problem solving while deepening students’ active engagement.	MP1: Make sense of problems and persevere in solving them.
Gather student perspectives through written or verbal reflection (for example, anticipation guides, exit slips, error analysis, interviews) so that students consider their learning, performance, and growth as learners.	MP3: Construct viable arguments and critique the reasoning of others.
Position students as mathematically competent by encouraging various entry points and elevating different ways students see and use structure in problems. For example, students might see a $3 \times 4 \times 5$ rectangular prism as three layers of a $4 \times 5$ array of cubes, as four layers of a $3 \times 5$ array of cubes, or as five layers of a $3 \times 4$ array of cubes.	MP7: Look for and make use of structure.

<sup>14</sup> 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.