In March 2020, school districts across the state experienced school closure due to COVID-19. Although schools were closed, districts transitioned to online instruction. The design and content of the at-home instruction model for districts varied across the state. Some taught review units of instruction, while others continued to teach the next units of instruction within their scope and sequence. Although some districts continued to teach the next units of instruction, the depth of concept expectations within the units may not have been met by all students. In order to support foundational understandings of concepts within the last nine weeks of 2019-2020, the mathematics team of TEKS Resource System has designed the Mathematics COVID-19 Gap Implementation Tool for district considerations during the 2020-2021 school year.

For non-STAAR tested grade levels, some units in the last nine weeks may have included concepts that had not been introduced earlier in the school year. For STAAR-tested grade levels, most school districts were completing the teaching of all standards in preparation of the upcoming STAAR. TEKS Resource System was diligent when creating each grade level scope and sequence to ensure the 4th nine weeks units were designed to solidify foundational understandings for students to be prepared for the next grade level. Therefore, the TEKS Resource System Mathematics COVID-19 Gap Implementation Tool reminds teachers to consider all previous grade level(s) standards of the last nine weeks that are aligned to the current grade level standards of the 2020-2021 school year.   
Note: Since these tools highlight the standards of the previous grade level(s), there is not a Kindergarten Mathematics COVID-19 Gap Implementation Tool.

Our goal is to encourage the inclusion of previous foundational understandings when appropriate throughout the year rather than beginning the 2020-2021 school year reviewing the last nine weeks of the previous year. We are not asking teachers to teach an additional nine weeks of school, but to use instructional techniques such as pre-assessing and wrapping of standards to connect vertically aligned grade level understandings seamlessly. Or, districts may choose to spiral previous foundational understandings prior to the current grade level unit of instruction.

**Gap Considerations at a Glance**

|  |  |  |
| --- | --- | --- |
| **Previous Grade Level → Current Grade Level** | **Previous Grade Level Concepts**  **NOT Taught or NOT COMPLETELY Taught**  **Prior to Last Nine Weeks of 2019-2020**  **That Impact the Current Grade Level** | **Previous Grade Level Concepts**  **Being Reviewed or Extended**  **in the Last Nine Weeks of 2019-2020**  **That May Impact the Current Grade Level** |
| Grade 3 → Grade 4 | Measurement | Fractions; Operations and problem solving; Data representations |

**Quick Key to Reading the Mathematics COVID-19 Gap Implementation Tool**

|  |  |
| --- | --- |
| **Strikethrough(s)** | Strikethrough(s) in the previous grade level **Last 9 Weeks Standards** column reflect the strikethrough(s) that appear in the previous grade level Unit IFDduring the last 9 weeks. This strikethrough(s) indicates the part of the SE that was not included in the hyperlinked previous grade level unit.  Strikethrough(s) in the current grade level **Aligned Standards** column reflect the strikethrough(s) that appear in the current grade level Unit IFD. This strikethrough(s) indicates the part of the SE that is not included in the current grade level unit where the gap is being considered.  While the standards in each row of the table are vertically aligned, any strikethroughs are not necessarily vertically aligned. |
| **Underlines** | **No underline** indicates the standard was completely taught prior to the 4th nine weeks.  **Underline** indicates the standard or part of the standard was not taught prior to the 4th nine weeks. |
| **Xs** | An X in a column **with** a previous grade level hyperlink indicates the current grade level unit in which all of the current grade level standards in the row occur and where the gap considerations from the previous grade level impact the current unit.  An X in a column **without** a previous grade level hyperlink indicates where all or some of the current grade level standards in the row occur in the scope and sequence. |
| **Hyperlinks** | A hyperlink to the previous grade level Unit IFD along with the previous grade level standards allows for quick access to view the specificity of the previous grade level standard(s) that includes a potential gap. |
| **Alternating Shading** | Alternating white and gray shading allows for easy visualization of a change in unit number. |

For complete instruction on how to read this tool, see the [Mathematics COVID-19 Gap Implementation Tool Instructions](https://www.teksresourcesystem.net/module/portfolio/filehandler.ashx?ID=934322).

|  |  | **2020–2021 School Year Grade 4 Units Reflected on Year at a Glance (YAG)** | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Grade 3**  **Last 9 Weeks Standards  2019-2020** | **Grade 4  Aligned Standards**  **2020-2021** | **Unit**  **01** | **Unit 02** | **Unit 03** | **Unit 04** | **Unit 05** | **Unit 06** | **Unit 07** | **Unit 08** | **Unit 09** | **Unit 10** | **Unit 11** | **Unit 12** | **Unit 13** |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | | **X** |  |  |  |  |  |  |  |  |  |  |  |  |
| **District notes:** | | | | | | | | | | | | | | |
| **3.4A** Solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction.  *Readiness* *Standard* | **4.4A** Add and subtract whole numbers and decimals to the hundredths place using the standard algorithm.  *Readiness Standard* |  | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.4A** |  |  | **X** |  |  |  |  |  | **X** |  | **X** |
| **Considerations:**  Although students may have been taught 3.4A, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.4A. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of addition and subtraction of whole numbers within 1,000 prior to introducing addition and subtraction of decimals to the hundredths place. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.5A** Represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.  *Readiness Standard* | **4.5A** Represent multi-step problems involving ~~the four operations~~ with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity.  *Readiness Standard* |  | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.5A** | **X** | **X** | **X** |  |  |  |  |  | **X** |  |  |
| **Considerations:**  Although students may have been taught 3.5A, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.5A. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of representing one- and two-step problems involving addition and subtraction within 1,000 prior to introducing representations of multi-step problems involving the four operations using strip diagrams and equations with a letter standing for the unknown quantity. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.4K** Solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.  *Readiness Standard* | **4.4H** Solve with fluency one- and two-step problems involving multiplication ~~and division, including interpreting remainders~~.  *Readiness Standard* |  |  | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.4K** | **X** | **X** |  |  |  |  |  | **X** |  | **X** |
| **Considerations:**  Although students may have been taught 3.4K, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.4H. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of solving multiplication within 100 of two-digit numbers by one-digit numbers prior to introducing problems involving multiplication of 2 two-digit numbers. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.5B** Represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.  *Readiness Standard* | **4.5A** Represent multi-step problems involving ~~the four operations~~ with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity.  *Readiness Standard* |  |  | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.5B** | **X** | **X** |  |  |  |  |  | **X** |  |  |
| **Considerations:**  Although students may have been taught 3.5B, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.5A. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of representing one- and two-step problems involving multiplication prior to introducing representations of multi-step problems involving multiplication using strip diagrams and equations with a letter standing for the unknown quantity. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.4K** Solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.  *Readiness Standard* | **4.4H** Solve with fluency one- and two-step problems involving ~~multiplication and~~ division, including interpreting remainders.  *Readiness Standard* |  |  | **X** | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.4K** | **X** |  |  |  |  |  | **X** |  | **X** |
| **Considerations:**  Although students may have been taught 3.4K, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.4H. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of solving division within 100 of a two-digit number divided by a one-digit number prior to introducing problems involving division of up to a four-digit number divided by a one-digit number. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.5B** Represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.  *Readiness Standard* | **4.5A** Represent multi-step problems involving ~~the four operations~~ with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity.  *Readiness Standard* |  |  | **X** | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.5B** | **X** |  |  |  |  |  | **X** |  |  |
| **Considerations:**  Although students may have been taught 3.5B, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.5A. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of representing one- and two-step problems involving division within 100 prior to introducing representations of multi-step problems involving division using strip diagrams and equations with a letter standing for the unknown quantity. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  | **X** |  |  |  |  |  |  |  |  |
| **District notes:** | | | | | | | | | | | | | | |
| **3.3G** Explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model.  *Supporting Standard* | **4.3C** Determine if two given fractions are equivalent using a variety of methods.  *Supporting Standard* |  |  |  |  |  | **X**  [**G3U14**](https://www.teksresourcesystem.net/module/content/search/item/678227/viewdetail.ashx)  **3.3G** |  |  |  |  |  | **X** |  |
| **Considerations:**  Although students may have been taught 3.3G, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.3C. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of fractions being equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model prior to introducing how to determine if fractions are equivalent using a numeric approach or numeric reasoning. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.3H** Compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.  *Readiness Standard* | **4.3D** Compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <.  *Readiness Standard* |  |  |  |  |  | **X**  [**G3U14**](https://www.teksresourcesystem.net/module/content/search/item/678227/viewdetail.ashx)  **3.3H** |  |  |  |  |  | **X** |  |
| **Considerations:**  Although students may have been taught 3.3H, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.3D. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of comparing two fractions with the same numerator or denominator prior to introducing the comparison of two fractions with different numerators and different denominators. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.3B** Determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line.  *Supporting Standard* | **4.3G** Represent fractions and decimals to the tenths or hundredths as distances from zero on a number line.  *Supporting Standard* | **X** |  |  |  |  | **X**  [**G3U14**](https://www.teksresourcesystem.net/module/content/search/item/678227/viewdetail.ashx)  **3.3B** |  |  |  |  |  | **X** |  |
| **Considerations:**  Although students may have been taught 3.3B, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.3G. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of representations of fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 on a number line prior to introducing representations of fractions to the tenths or hundredths a number line. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.8B** Solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.  *Supporting Standard* | **4.9B** Solve one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot.  *Supporting Standard* |  |  |  |  |  |  | **X**  [**G3U13**](https://www.teksresourcesystem.net/module/content/search/item/678226/viewdetail.ashx)  **3.8B** |  |  |  | **X** |  |  |
| **Considerations:**  Although students may have been taught 3.8B, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.9B. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of how to solve one- and two-step problems using data in whole number form in a frequency table or dot plot prior to introducing solutions to one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table or dot plot. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.6C** Determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row.  *Readiness Standard* | **4.5C** Use models to determine the formulas for the perimeter of a rectangle (*l* + *w* + *l* + *w* or  2*l* + 2*w*), including the special form for perimeter of a square (4*s*) and the area of a rectangle  (*l* x *w*). |  |  |  |  |  |  |  | **X**  [**G3U12**](https://www.teksresourcesystem.net/module/content/search/item/678225/viewdetail.ashx)  **3.6C**  [**G3U15**](https://www.teksresourcesystem.net/module/content/search/item/678228/viewdetail.ashx)  **3.6C** |  |  |  |  |  |
| **Considerations:**  Although students may have been taught 3.6C, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.5C. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of determining area using multiplication related to the number of rows times the number of square units in each row prior to introducing the use of models to determine the formula for area. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.6D** Decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area.  *Supporting Standard* | **4.5D** Solve problems related to perimeter and area of rectangles where dimensions are whole numbers.  *Readiness Standard* |  |  |  |  |  |  |  | **X**  [**G3U12**](https://www.teksresourcesystem.net/module/content/search/item/678225/viewdetail.ashx)  **3.6D** |  |  | **X** |  |  |
| **Considerations:**  Although students may have been taught 3.6D, they may not have had the opportunity to solidify the foundational understandings to prepare them for 4.5D. Grade 4 teachers should be prepared to:   * Pre-assess students’ understanding of determining the area of composite figures formed by rectangles using decomposition and the additive property of area prior to introducing problems related to area of rectangles, which may include area of composite rectangles. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| **3.7B** Determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems.  *Readiness Standard*  **3.7C** Determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes.  *Supporting Standard*  **3.7D** Determine when it is appropriate to use measurements of liquid volume (capacity) or weight.  *Supporting Standard*  **3.7E** Determine liquid volume (capacity) or weight using appropriate units and tools.  *Supporting Standard* | **4.8C** Solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate.  *Readiness Standard* |  |  |  |  |  |  |  | **X**  [**G3U12**](https://www.teksresourcesystem.net/module/content/search/item/678225/viewdetail.ashx)  **3.7B**  **3.7C**  **3.7D**  **3.7E**  [**G3U15**](https://www.teksresourcesystem.net/module/content/search/item/678228/viewdetail.ashx)  **3.7B** |  |  | **X** |  | **X** |
| **Considerations:**  Although students may have been taught 3.7B (determining the perimeter of a polygon), they may not have been taught 3.7B (determining a missing side length when given perimeter and remaining side lengths). So, students may not have had the opportunity to solidify the foundational understandings to prepare them for 4.8C. Grade 4 teachers should be prepared to:   * Introduce determining a missing side length of a polygon when given perimeter and remaining side lengths in problems.   Students may not have been taught 3.7C, 3.7D, and 3.7E and may not have had the opportunity to solidify the foundational understandings to prepare them for 4.8C. Grade 4 teachers should be prepared to:   * Introduce solving problems involving addition and subtraction of time intervals in minutes using pictorial models or tools, including solving for a missing start time or solving for a missing end time, prior to introducing problems involving elapsed time. * Introduce determining when it is appropriate to use measurements of liquid volume (capacity) or weight. * Introduce determining liquid volume (capacity) or weight using appropriate units and tools in conjunction with introducing problems that deal with liquid volume and mass. | | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  |  |  |  |  | **X** |  |  |  |  |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  |  |  |  |  |  | **X** |  |  |  |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  |  |  |  |  |  |  | **X** |  |  |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  |  |  |  |  |  |  |  | **X** |  |
| **District notes:** | | | | | | | | | | | | | | |
| There are no additional COVID-19 gap considerations from the previous grade level for this unit. | |  |  |  |  |  |  |  |  |  |  |  |  | **X** |
| **District notes:** | | | | | | | | | | | | | | |