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 8 → Algebra I |  | Solving equations; Function representations; Writing equations; Linear proportional and non-proportional relationships; Scatterplots and trend lines; Solving systems of equations graphically |

**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 Algebra I Units Reflected on Year at a Glance (YAG)** | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Grade 8**  **Last 9 Weeks Standards  2019-2020** | **Algebra I  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** |
| **8.8C** Model and solve one-variable equations with variables on both sides of the equal sign that represent mathematical and real-world problems using rational number coefficients and constants.  *Readiness Standard* | **A.5A** Solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.  *Readiness Standard*  **A.5B** Solve linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.  *Supporting Standard* | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.8C** |  |  |  |  |  |  |  |  |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.8C, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.5A and A.5B. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of solving one-variable equations with variables on both sides of the equal sign prior to solving linear equations for which the application of the distributive property is necessary. * Pre-assess students’ understanding of solving one-variable equations with variables on both sides of the equal sign prior to solving linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.   Note: Grade 7 requires solving one-variable, two-step inequalities with the variable on one side of the inequality using concrete, pictorial, and algebraic representations. While solving one-variable, two-step equations with variables on both sides occurs in Grade 8, solving one-variable, two-step inequalities with variables on both sides does not. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5G** Identify functions using sets of ordered pairs, tables, mappings, and graphs.  *Readiness Standard* | **A.2A** Determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities.  *Readiness Standard*  **A.6A** Determine the domain and range of quadratic functions and represent the domain and range using inequalities.  *Readiness Standard*  **A.9A** Determine the domain and range of exponential functions of the form *f*(*x*) = *abx* and represent the domain and range using inequalities.  *Supporting Standard* |  | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.5G** | **X** | **X** |  |  |  | **X** | **X** |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.5G, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.2A, A.6A, and A.9A. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of identifying functions prior to determining and representing the domain and range of functions, including linear, quadratic, and exponential functions. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5I** Write an equation in the form  *y = mx + b* to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations.  *Readiness Standard* | **A.2C** Write linear equations in two variables given a table of values, a graph, and a verbal description.  *Readiness Standard* |  |  | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.5I**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.5I** | **X** |  |  |  |  |  |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.5I, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.2C. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of writing linear equations in the form *y* = *mx* + *b* prior to writing linear equations in point-slope form or standard form. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.4C** Use data from a table or graph to determine the rate of change or slope and *y*-intercept in mathematical and real-world problems.  *Readiness Standard* | **A.3B** Calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems.  *Readiness Standard* |  |  | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.4C** | **X** |  |  |  |  |  |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.4C, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.3B. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of determining the rate of change from a table or graph prior to calculating the rate of change of a linear function represented algebraically. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.4B** Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.  *Readiness Standard* | **A.3C** Graph linear functions on the coordinate plane and identify key features, including *x*-intercept,  *y*-intercept, zeros, and slope, in mathematical and real-world problems.  *Readiness Standard* |  |  | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.4B**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.4B** | **X** |  |  |  |  |  |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.4B, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.3C. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of connections between slope and unit rate for graphs of proportional relationships prior to graphing linear functions and identifying their key features. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5B** Represent linear non-proportional situations with tables, graphs, and equations in the form of *y = mx + b*, where *b* ≠ 0.  *Supporting Standard* | **A.2B** Write linear equations in two variables in various forms, including *y = mx + b*, *Ax + By = C*, and *y - y*1 *= m*(*x - x*1), given one point and the slope and given two points.  *Supporting Standard* |  |  |  | **X**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.5B** |  |  |  |  |  |  |  |  |
| **Considerations:**  Although students may have been taught 8.5B, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.2B. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of representing linear non-proportional situations with equations in slope-intercept form prior to writing linear equations in various forms when given one point and the slope and given two points. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5A** Represent linear proportional situations with tables, graphs, and equations in the form of *y = kx*.  *Supporting Standard* | **A.2D** Write and solve equations involving direct variation.  *Supporting Standard* |  |  |  | **X**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.5A** |  |  |  |  |  |  |  |  |
| **Considerations:**  Although students may have been taught 8.5A, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.2D. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of representing linear proportional situations with equations in the form of *y = kx* prior to writing and solving equations involving direct variation. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5C** Contrast bivariate sets of data that suggest a linear relationship with bivariate sets of data that do not suggest a linear relationship from a graphical representation.  *Supporting Standard*  **8.11A** Construct a scatterplot and describe the observed data to address questions of association such as linear, non-linear, and no association between bivariate data.  *Supporting Standard* | **A.4A** Calculate, using technology, the correlation coefficient between two quantitative variables and interpret this quantity as a measure of the strength of the linear association.  *Supporting Standard*  **A.4B** Compare and contrast association and causation in real-world problems.  *Supporting Standard* |  |  |  | **X**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.5C**  **8.11A** |  |  |  |  |  |  |  |  |
| **Considerations:**  Although students may have been taught 8.5C and 8.11A, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.4A and A.4B. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of scatterplots that do and do not suggest linear relationships prior to calculating the correlation coefficient and interpreting its meaning. * Pre-assess students’ understanding of constructing scatterplots and describing patterns of association in the observed data prior to interpreting the correlation coefficient as a measure of the strength of the linear association. * Pre-assess students’ understanding of association prior to differentiating between association and causation. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.5D** Use a trend line that approximates the linear relationship between bivariate sets of data to make predictions.  *Readiness Standard* | **A.4C** Write, with and without technology, linear functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.  *Supporting Standard* |  |  |  | **X**  [**G8U10**](https://www.teksresourcesystem.net/module/content/search/item/678289/viewdetail.ashx)  **8.5D**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.5D** |  |  |  |  |  |  | **X** | **X** |
| **Considerations:**  Although students may have been taught 8.5D, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.4C. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of using a trend line on a graph to make predictions prior to writing linear function models for data and using these models to make predictions. | | | | | | | | | | | | | |
| **District notes:** | | | | | | | | | | | | | |
| **8.9A** Identify and verify the values of *x* and *y* that simultaneously satisfy two linear equations in the form *y = mx + b* from the intersections of the graphed equations.  *Supporting Standard* | **A.3F** Graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist.  *Supporting Standard*  **A.3G** Estimate graphically the solutions to systems of two linear equations with two variables in real-world problems.  *Supporting Standard* |  |  |  |  | **X**  [**G8U12**](https://www.teksresourcesystem.net/module/content/search/item/678291/viewdetail.ashx)  **8.9A** |  |  |  |  |  |  |  |
| **Considerations:**  Although students may have been taught 8.9A, they may not have had the opportunity to solidify the foundational understandings to prepare them for A.3F and A.3G. Algebra I teachers should be prepared to:   * Pre-assess students’ understanding of identifying values of *x* and *y* that simultaneously satisfy two linear equations from the graph of the equations prior to graphing systems of two linear equations, determining the solutions if they exist, and graphically estimating the solutions to systems in real-world problems. | | | | | | | | | | | | | |
| **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:** | | | | | | | | | | | | | |
| 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:** | | | | | | | | | | | | | |