**Access Project Logo
**

**Access Mathematics**

**Grade 3**

**(#7712040)**

**Course Standards**

[MA.3.AR.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15320) Apply the distributive property to multiply a one-digit number and two-digit number. Apply properties of multiplication to find a product of one-digit whole numbers.

**Clarifications:**  
*Clarification 1:* Within this benchmark, the expectation is to apply the associative and commutative properties of multiplication, the distributive property and name the properties. Refer to [K-12 Glossary (Appendix C)](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/ma/appendixc.pdf).

*Clarification 2:* Within the benchmark, the expectation is to utilize parentheses.

*Clarification 3:* Multiplication for products of three or more numbers is limited to factors within 12. Refer to [Properties of Operations, Equality and Inequality (Appendix D)](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/ma/appendixd.pdf).

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.1.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18037) | Apply the commutative property of multiplication to find a product of one-digit whole numbers. |  |  |  |
| Essential  Understandings | * Represent multiplication expressions using objects to find products * Recognize that when given a multiplication expression that changing the order of the factors does not change the product |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.1.1_ADA.docx) |  |  |  |

[MA.3.AR.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15321) Solve one- and two-step real-world problems involving any of four operations with whole numbers.

**Clarifications:**  
*Clarification 1:* Instruction includes understanding the context of the problem, as well as the quantities within the problem.

*Clarification 2:* Multiplication is limited to factors within 12 and related division facts. Refer to [Situations Involving Operations with Numbers (Appendix A)](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/ma/appendixa.pdf)

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.1.AP.2a:](https://www.cpalms.org/PreviewAccessPoint/Preview/18038) | Solve one- and two-step addition and subtraction real-world problems within 100. |  |  |  |
| Essential  Understandings | * Represent addition and subtraction situations involving “adding to” and “taking from” with objects or drawings * Understand the need to represent all actions in a situation and that there may be more than one action required * Add or subtract within 100 |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.1.2_ADA.docx) |  |  |  |
| [MA.3.AR.1.AP.2b:](https://www.cpalms.org/PreviewAccessPoint/Preview/18039) | Solve one-step multiplication and division real-world problems. Multiplication may not exceed two single-digit whole numbers and their related division facts. |  |  |  |
| Essential  Understandings | * Represent multiplication and division situations involving equal groups and rectangular arrays with objects or drawings * Multiply two single-digit whole numbers and perform their related division facts |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.1.2_ADA.docx) |  |  |  |

[MA.3.AR.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15322) Restate a division problem as a missing factor problem using the relationship between multiplication and division.

**Clarifications:**  
*Clarification 1:* Multiplication is limited to factors within 12 and related division facts.

*Clarification 2:* Within this benchmark, the symbolic representation of the missing factor uses any symbol or a letter.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.2.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18040) | Explore division as multiplication with a missing factor using the relationship between multiplication and division. |  |  |  |
| Essential  Understandings | * Model multiplication and division expressions with objects * Given a multiplication or division expression (e.g., 4 x 3; 12 ), use objects to perform multiplication of two single-digit whole numbers and their related division facts * Determine and explain whether an equation involving multiplication or division is true or false. |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.2.1_ADA.docx) |  |  |  |

[MA.3.AR.2.2:](https://www.cpalms.org//PreviewStandard/Preview/15323) Determine and explain whether an equation involving multiplication or division is true or false.

**Clarifications:**  
*Clarification 1:* Instruction extends the understanding of the meaning of the equal sign to multiplication and division.

*Clarification 2:* Problem types are limited to an equation with three or four terms. The product or quotient can be on either side of the equal sign.

*Clarification 3:* Multiplication is limited to factors within 12 and related division facts.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.2.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18041) | Determine if multiplication or division equations with no more than three terms are true or false. Multiplication may not exceed two single-digit whole numbers and their related division facts. |  |  |  |
| Essential  Understandings | * Use objects to find products of two single-digit whole numbers and their related division facts * Understand the concept of “equality” as the balance of two values (e.g., if a balance scale is level, then the values are equal and if it is not level, then the values are not equal) * Understand that = is “equal to” * Understand that if the values on either side of the equal sign are the same, then the equation is true and if the values on either side of the equal side are not the same, then the equation is false |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.2.2_ADA.docx) |  |  |  |

[MA.3.AR.2.3:](https://www.cpalms.org//PreviewStandard/Preview/15324) Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the unknown in any position.

**Clarifications:**  
*Clarification 1:* Instruction extends the development of algebraic thinking skills where the symbolic representation of the unknown uses any symbol or a letter.   
*Clarification 2:* Problems include the unknown on either side of the equal sign.   
*Clarification 3:* Multiplication is limited to factors within 12 and related division facts. Refer to [Situations Involving Operations with Numbers (Appendix A)](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/ma/appendixa.pdf).

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.2.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18042) | Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the product or quotient unknown (e.g., 2 × 5 = \_\_, 10 ÷ 5 = \_\_). Multiplication may not exceed two single-digit whole numbers and their related division facts. |  |  |  |
| Essential  Understandings | * Given a multiplication or division expression (e.g., 2 x 5; 10 ) use objects to solve * Understand a symbol (e.g., \_\_\_ or ) may be used to represent an unknown number in an equation * Understand that = is “equal to” |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.2.3_ADA.docx) |  |  |  |

[MA.3.AR.3.1:](https://www.cpalms.org//PreviewStandard/Preview/15325) Determine and explain whether a whole number from 1 to 1,000 is even or odd.

**Clarifications:**  
*Clarification 1:* Instruction includes determining and explaining using place value and recognizing patterns.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.3.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18043) | Determine whether a whole number from 1 to 100 is even or odd. |  |  |  |
| Essential  Understandings | * Recognize that even numbers can be paired using two equal groups and odd numbers can be paired with two equal groups with one left over * Recognize that there is a pattern where you only have to look in the ones place to determine if a number is odd or even |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.3.1_ADA.docx) |  |  |  |

[MA.3.AR.3.2:](https://www.cpalms.org//PreviewStandard/Preview/15326) Determine whether a whole number from 1 to 144 is a multiple of a given one-digit number.

**Clarifications:**  
*Clarification 1:* Instruction includes determining if a number is a multiple of a given number by using multiplication or division.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.3.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18044) | Explore that a whole number is a multiple of each of its factors. Factors not to exceed single-digit whole numbers. |  |  |  |
| Essential  Understandings | * Understand the concept of multiplication involves the accumulation of equal groups |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.3.2_ADA.docx) |  |  |  |

[MA.3.AR.3.3:](https://www.cpalms.org//PreviewStandard/Preview/15327) Identify, create, and extend numerical patterns.

**Clarifications:**  
*Clarification 1:* The expectation is to use ordinal numbers (1st, 2nd, 3rd, …) to describe the position of a number within a sequence.

*Clarification 2:* Problem types include patterns involving addition, subtraction, multiplication, or division of whole numbers.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.AR.3.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18045) | Extend a numerical pattern when given a one-step addition rule (e.g., when given the pattern 5, 10, 15, use the rule add 5 to extend the pattern). |  |  |  |
| Essential  Understandings | * Understand that patterns are repeated and predictable * Perform basic addition |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.AR.3.3_ADA.docx) |  |  |  |

[MA.3.DP.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15339) Collect and represent numerical and categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs or line plots. Use appropriate titles, labels, and units.

**Clarifications:**  
*Clarification 1:* Within this benchmark, the expectation is to complete a representation or construct a representation from a data set.

*Clarification 2:* Instruction includes the connection between multiplication and the number of data points represented by a bar in scaled bar graph or a scaled column in a pictograph.

*Clarification 3:* Data displays are represented both horizontally and vertically.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.DP.1.AP.1a:](https://www.cpalms.org/PreviewAccessPoint/Preview/18059) | Sort and represent categorical data (up to four categories) with whole-number values using tables, pictographs or bar graphs. Select appropriate title, labels and units. |  |  |  |
| Essential  Understandings | * Understand that each category represents a group with a characteristic in common * Understand that each tally mark or picture represents one data point from that category * Understand that the total number of tally marks or pictures in each category tells “how many” in each category. * Understand that the numerals in each section of the table or the height of each bar tells “how many” in each category * Understand the terms and location of “title” “labels” and “units” |  |  |  |
| Resources: |  |  |  |  |
| [MA.3.DP.1.AP.1b:](https://www.cpalms.org/PreviewAccessPoint/Preview/18060) | Explore representing numerical data with whole-number values using line plots. |  |  |  |
| Essential  Understandings | * Understand using a horizontal number line * Understand that different types of data can be collected and represented in various ways |  |  |  |
| Resources: |  |  |  |  |

[MA.3.DP.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15340) Interpret data with whole-number values represented with tables, scaled pictographs, circle graphs, scaled bar graphs or line plots by solving one- and two-step problems.

**Clarifications:**  
*Clarification 1:* Problems include the use of data in informal comparisons between two data sets in the same units. *Clarification 2:* Data displays can be represented both horizontally and vertically.

*Clarification 3:* Circle graphs are limited to showing the total values in each category.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.DP.1.AP.2a:](https://www.cpalms.org/PreviewAccessPoint/Preview/18061) | Interpret data with whole-number values represented with tables, pictographs or bar graphs to solve one-step “how many more” and “how many less” problems. |  |  |  |
| Essential  Understandings | * Understand that each category represents a group with a characteristic in common * Understand that each tally mark or picture represents one data point from that category * Understand that the total number of tally marks or pictures in each category tells “how many” in each category * Understand that the numerals in each section of the table or the height of each bar tells “how many” in each category * Understand the terms and location of “title” “labels” and “units” * Understand the concepts of “more” and “less” * Use objects or drawings to solve comparison problems |  |  |  |
| Resources: |  |  |  |  |
| [MA.3.DP.1.AP.2b:](https://www.cpalms.org/PreviewAccessPoint/Preview/18062) | Interpret data with whole-number values represented with scaled pictographs or scaled bar graphs. For scaled pictographs, symbols used may only represent quantities of 2, 5 or 10 and only whole symbols may be used. For scaled bar graphs, intervals may only represent quantities of 2, 5 or 10. |  |  |  |
| Essential  Understandings | * Understand that each category represents a group with a characteristic in common * Understand that each picture represents data from that category * Understand that the total value of the pictures in each category tells “how many” in each category. * Skip count by 2’s, 5’s, and 10’s * Understand that the height of each bar tells “how many” in each category * Understand the terms and location of “title” “labels,” “units,” and “key” |  |  |  |
| Resources: |  |  |  |  |
| [MA.3.DP.1.AP.2c:](https://www.cpalms.org/PreviewAccessPoint/Preview/18063) | Explore interpreting data with whole-number values represented with line plots. |  |  |  |
| Essential  Understandings | * Understand reading a horizontal number line * Understand that each X or dot on the line plot represents 1 object with that length, temperature, or liquid volume * Use repeated addition of whole numbers to find totals |  |  |  |
| Resources: |  |  |  |  |

[MA.3.FR.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15315) Represent and interpret unit fractions in the form 1/n as the quantity formed by one part when a whole is partitioned into equal parts.

**Clarifications:**  
*Clarification 1:* This benchmark emphasizes conceptual understanding using manipulatives or visual models.   
*Clarification 2:* Instruction focuses on representing a unit fraction as part of a whole, part of a set, a point on a number line, a visual model or in fractional notation.

*Clarification 3:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.FR.1.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18032) | Explore unit fractions in the form as the quantity formed by one part when a whole is partitioned into *n* equal parts. Denominators are limited to 2, 3 and 4. |  |  |  |
| Essential  Understandings | * Partition circles and rectangles into two, three or four equal-sized parts * Recognize the parts of the whole as halves, thirds, or fourths |  |  |  |
| Resources: |  |  |  |  |

[MA.3.FR.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15316) Represent and interpret fractions, including fractions greater than one, in the form of mn as the result of adding the unit fraction 1n to itself *m*times.

**Clarifications:**  
*Clarification 1:* Instruction emphasizes conceptual understanding through the use of manipulatives or visual models, including circle graphs, to represent fractions.

*Clarification 2:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.FR.1.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18033) | Explore fractions, less than or equal to a whole, in the form of as the result of adding the unit fraction to itself *m* times. Denominators are limited to 2, 3 and 4. |  |  |  |
| Essential  Understandings | * Understand unit fractions in the form 1/n as the quantity formed by one part when a whole is partitioned into *n* equal parts |  |  |  |
| Resources: |  |  |  |  |

[MA.3.FR.1.3:](https://www.cpalms.org//PreviewStandard/Preview/15317) Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form.

**Clarifications:**  
*Clarification 1:* Instruction focuses on making connections to reading and writing numbers to develop the understanding that fractions are numbers and to support algebraic thinking in later grades.

*Clarification 2:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.FR.1.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18034) | Read and generate fractions, less than or equal to a whole, using standard form. |  |  |  |
| Essential  Understandings | * Recognize the parts of the whole as halves, thirds, or fourths * Understand fractions, less than or equal to a whole, in the form of *m*/n is the result of adding the unit fraction 1/n to itself *m* times |  |  |  |
| Resources: |  |  |  |  |

[MA.3.FR.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15318) Plot, order and compare fractional numbers with the same numerator or the same denominator.

**Clarifications:**  
*Clarification 1:* Instruction includes making connections between using a ruler and plotting and ordering fractions on a number line.   
*Clarification 2:* When comparing fractions, instruction includes an appropriately scaled number line and using reasoning about their size.

*Clarification 3:* Fractions include fractions greater than one, including mixed numbers, with denominators limited to 2, 3, 4, 5, 6, 8, 10 and 12.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.FR.2.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18035) | Compare fractional numbers with the same denominator. Denominators are limited to 2, 3 and 4. |  |  |  |
| Essential  Understandings | * Understand the denominator is the size of the equal parts of the whole and the numerator is the number of equal parts being described |  |  |  |
| Resources: |  |  |  |  |

[MA.3.FR.2.2:](https://www.cpalms.org//PreviewStandard/Preview/15319) Identify equivalent fractions and explain why they are equivalent.

**Clarifications:**  
*Clarification 1:* Instruction includes identifying equivalent fractions and explaining why they are equivalent using manipulatives, drawings, and number lines.

*Clarification 2:* Within this benchmark, the expectation is not to generate equivalent fractions.

*Clarification 3:* Fractions are limited to fractions less than or equal to one with denominators of 2, 3, 4, 5, 6, 8, 10 and 12. Number lines must be given and scaled appropriately.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.FR.2.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18036) | Using a visual model, recognize fractions less than a whole that are equivalent to fractions with denominators of 2, 3 or 4 (e.g., is equivalent to ). |  |  |  |
| Essential  Understandings | * Understand that when a whole is partitioned into more parts, the parts are smaller and when a whole is partitioned into less parts, the parts are larger * Understand that a greater quantity of smaller parts can be combined to cover the same area as a lesser quantity of larger parts |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15332) Describe and draw points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines. Identify these in two-dimensional figures.

**Clarifications:**  
*Clarification 1:* Instruction includes mathematical and real-world context for identifying points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines.

*Clarification 2:* When working with perpendicular lines, right angles can be called square angles or square corners.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.1.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18052) | Identify points, lines, line segments, perpendicular lines and parallel lines. Identify these in two-dimensional figures. |  |  |  |
| Essential  Understandings | * Understand the terms “points,” “lines,” “line segments,” “perpendicular lines,” and “parallel lines” |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15333) Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares, and trapezoids.

**Clarifications:**  
*Clarification 1:* Instruction includes a variety of quadrilaterals and a variety of non-examples that lack one or more defining attributes when identifying quadrilaterals.

*Clarification 2:* Quadrilaterals will be filled, outlined or both when identifying.

*Clarification 3:* Drawing representations must be reasonably accurate.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.1.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18053) | Identify quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares, and trapezoids. |  |  |  |
| Essential  Understandings | * Identify specified defining attributes (i.e., sides, vertices, closed versus open, straight versus curved) in isolated quadrilaterals * Understand the defining attributes of quadrilaterals |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.1.3:](https://www.cpalms.org//PreviewStandard/Preview/15334) Draw line(s) of symmetry in a two-dimensional figure and identify line-symmetric two-dimensional figures.

**Clarifications:**  
*Clarification 1:* Instruction develops the understanding that there could be no line of symmetry, exactly one line of symmetry or more than one line of symmetry.

*Clarification 2:* Instruction includes folding paper along a line of symmetry so that both halves match exactly to confirm line-symmetric figures.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.1.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18054) | Identify line-symmetric two-dimensional figures. |  |  |  |
| Essential  Understandings | * Recognize when a shape can be divided into two equal parts * Understand the concept of a line of symmetry |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15335) Explore area as an attribute of a two-dimensional figure by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares.

**Clarifications:**  
*Clarification 1:* Instruction emphasizes the conceptual understanding that area is an attribute that can be measured for a two-dimensional figure. The measurement unit for area is the area of a unit square, which is a square with side length of 1 unit.

*Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses include the appropriate units in word form (e.g., square centimeter or sq.cm.).

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.2.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18055) | Explore area as an attribute of a two-dimensional figure that can be measured by covering the figure with unit squares without gaps or overlaps. |  |  |  |
| Essential  Understandings | * Express the length of a side of an object as a whole number of lengths using non-standard objects laid end to end with no gaps or overlaps |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.2.2:](https://www.cpalms.org//PreviewStandard/Preview/15336) Find the area of a rectangle with whole-number side lengths using a visual model and a multiplication formula.

**Clarifications:**  
*Clarification 1:* Instruction includes covering the figure with unit squares, a rectangular array or applying a formula.

*Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses include the appropriate units in word form.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.2.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18056) | Find the area of a rectangle with whole-number side lengths by counting unit squares. Explore that the area is the same as what would be found by multiplying the side lengths. |  |  |  |
| Essential  Understandings | * Understand the concept of area * Understand the concept of multiplication using arrays |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.2.3:](https://www.cpalms.org//PreviewStandard/Preview/15337) Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model and a formula.

**Clarifications:**  
*Clarification 1:* Within this benchmark, the expectation is not to find unknown side lengths.

*Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses include the appropriate units in word form.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.2.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18057) | Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model. |  |  |  |
| Essential  Understandings | * Distinguish between the concepts of area and perimeter. * Find the perimeter of a rectangle with whole-number side lengths given. * Find the area of a rectangle with whole-number side lengths by counting unit squares or multiplying the side lengths. |  |  |  |
| Resources: |  |  |  |  |

[MA.3.GR.2.4:](https://www.cpalms.org//PreviewStandard/Preview/15338) Solve mathematical and real-world problems involving the perimeter and area of composite figures composed of non-overlapping rectangles with whole-number side lengths.

**Clarifications:**  
*Clarification 1:* Composite figures must be composed of non-overlapping rectangles.

*Clarification 2:* Each rectangle within the composite figure cannot exceed 12 units by 12 units and responses include the appropriate units in word form.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.GR.2.AP.4:](https://www.cpalms.org/PreviewAccessPoint/Preview/18058) | Explore the perimeter and area of composite figures composed of two non-overlapping rectangles with whole-number side lengths. |  |  |  |
| Essential  Understandings | * Distinguish between the concepts of area and perimeter * Find the perimeter of a rectangle with whole-number side lengths given * Find the area of a rectangle with whole-number side lengths by counting unit squares or multiplying the side lengths |  |  |  |
| Resources: |  |  |  |  |

[MA.3.M.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15328) Select and use appropriate tools to measure the length of an object, the volume of liquid within a beaker and temperature.

**Clarifications:**  
*Clarification 1:* Instruction focuses on identifying measurement on a linear scale, making the connection to the number line.

*Clarification 2:* When measuring the length, limited to the nearest centimeter and half or quarter inch.

*Clarification 3:* When measuring the temperature, limited to the nearest degree.

*Clarification 4:* When measuring the volume of liquid, limited to nearest milliliter and half or quarter cup.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.M.1.AP.1a:](https://www.cpalms.org/PreviewAccessPoint/Preview/18046) | Select and use appropriate tools to measure the length (i.e., inches, feet, yards) of an object. |  |  |  |
| Essential  Understandings | * Understand that length is an attribute of objects that can be measured using a ruler or yard stick and the length of the object being measured influences the choice of the tool (i.e., use a ruler to measure the length of a pencil and use a yard stick to measure the length of the classroom) * Understand that length is an attribute that can be measured in inches, feet, and yards * Identify the beginning and end point of the object that needs to be measured. * Recognize that the units marked on a ruler/yard stick have equal length intervals * Understand that the total number of equal interval distances, spanned end to end, can be counted to determine the overall length of an object |  |  |  |
| Resources: |  |  |  |  |
| [MA.3.M.1.AP.1b:](https://www.cpalms.org/PreviewAccessPoint/Preview/18047) | Explore selecting and using appropriate tools to measure liquid volume (i.e., gallons, quarts, pints, cups) and temperature in degrees Fahrenheit. |  |  |  |
| Essential  Understandings | * Understand that measurement tools are selected based on the attribute being measured |  |  |  |
| Resources: |  |  |  |  |

[MA.3.M.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15329) Solve real-world problems involving any of the four operations with whole-number lengths, masses, weights, temperatures, or liquid volumes.

**Clarifications:**  
*Clarification 1:* Within this benchmark, it is the expectation that responses include appropriate units.

*Clarification 2:* Problem types are not expected to include measurement conversions.

*Clarification 3:* Instruction includes the comparison of attributes measured in the same units.

*Clarification 4:* Units are limited to yards, feet, inches; meters, centimeters; pounds, ounces; kilograms, grams; degrees Fahrenheit, degrees Celsius; gallons, quarts, pints, cups; and liters, milliliters.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.M.1.AP.2a:](https://www.cpalms.org/PreviewAccessPoint/Preview/18048) | Solve one- and two-step addition and subtraction real-world problems within 100 with whole number lengths (i.e., inches, feet, yards), temperatures (i.e., degrees Fahrenheit) or liquid volumes (i.e., gallons, quarts, pints, cups). |  |  |  |
| Essential  Understandings | * Represent addition and subtraction measurement situations involving “adding to” and “taking from” with objects or drawings * Understand the need to represent all actions in a situation and that there may be more than one action required. * Add or subtract within 10 |  |  |  |
| Resources: |  |  |  |  |
| [MA.3.M.1.AP.2b:](https://www.cpalms.org/PreviewAccessPoint/Preview/18049) | Solve one-step multiplication and division real-world problems with whole number lengths (i.e., inches, feet, yards), temperatures (i.e., degrees Fahrenheit) or liquid volumes (i.e., gallons, quarts, pints and cups). Multiplication may not exceed two single-digit whole numbers and their related division facts. |  |  |  |
| Essential  Understandings | * Represent multiplication and division measurement situations with objects or drawings * Multiply two single-digit whole numbers and perform their related division |  |  |  |
| Resources: |  |  |  |  |

[MA.3.M.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15330) Using analog and digital clocks tell and write time to the nearest minute using a.m. and p.m. appropriately.

**Clarifications:**  
*Clarification 1:* Within this benchmark, the expectation is not to understand military time.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.M.2.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18050) | Using analog and digital clocks, express the time to the nearest five minutes using a.m. and p.m. appropriately. |  |  |  |
| Essential  Understandings | * Understand that time is an attribute that can be measured with a clock and can be expressed in hours and minutes * Recognize that on an analog clock the longer hand is the minute hand and that the shorter hand is the hour hand * Understand that when the shorter hand starts at 12 and moves one full rotation around the clock back to 12 that 60 minutes (or an hour) has passed and that a new hour begins * Skip count by 5’s (up to 55) * Recognize that on an analog clock the last numeral that the shorter hand reached/passed represents the hours (The time is read as hour then minutes) * Recognize that on a digital clock the numerals 1-12, before the colon, represent the hours and the numerals (00-59) after the colon represent the minutes (The time is read as hour then minutes) * Understand that when telling time, it is important to specify whether the time is a.m. or p.m. |  |  |  |
| Resources: |  |  |  |  |

[MA.3.M.2.2:](https://www.cpalms.org//PreviewStandard/Preview/15331) Solve one- and two-step real-world problems involving elapsed time.

**Clarifications:**  
*Clarification 1:* Within this benchmark, the expectation is not to include crossing between a.m. and p.m.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.M.2.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18051) | Solve for end time in one-step real-world problems when given start time and elapsed time in whole hours or minutes within the hour. |  |  |  |
| Essential  Understandings | * Represent situations involving “adding to” with objects or drawings * Add within 60 |  |  |  |
| Resources: |  |  |  |  |

[MA.3.NSO.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15307) Read and write numbers from 0 to 10,000 using standard form, expanded form and word form.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.1.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18024) | Read and generate numbers from 0 to 1,000 using standard form and expanded form. |  |  |  |
| Essential  Understandings | * Express number names (rote count) up to 100. * Skip count by 100’s up to 1,000 * Identify a number written in standard form when given the name of the number up to 100 * Understand that the 4 digits of a four-digit number represent an amount of thousands, hundreds, tens, and further ones * Understand that expanded form is the value of the thousands, plus the value of the hundreds, plus the value of the tens, plus the value of the ones * Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to 1, 2, 3, 4, 5, 6, 7, 8, 9 tens and 0 further ones * Understand that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to 1, 2, 3, 4, 5, 6, 7, 8, 9 hundreds and 0 further tens and 0 further ones * Generate numbers 0-100 using standard form |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.1.1_ADA.docx) |  |  |  |

[MA.3.NSO.1.2:](https://www.cpalms.org//PreviewStandard/Preview/15308) Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens, and ones. Demonstrate each composition or decomposition using objects, drawings and expressions or equations.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.1.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18025) | Compose and decompose three-digit numbers using hundreds, tens and ones. Demonstrate each composition or decomposition with objects, drawings, expressions or equations. |  |  |  |
| Essential  Understandings | * Understand that a group of 10 tens is equal to 1 hundred (e.g., 10 ten-rods is equal to 1 hundred flat) and a group of 10 hundreds is equal to 1 thousand (e.g., 10 hundred flats is equal to 1 thousand cube) * Represent numbers up to 1,000 using thousands, hundreds, tens, and ones * Skip count by 100’s * Count on from century numbers by 10’s. Count on from decade numbers by ones * Given a number up to 1,000, understand that the digit in the thousands place represents the number of thousands, the number in the hundreds place represents the number of hundreds, the number in the tens place represents the number of tens and the digit in the ones place represents the number of ones |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.1.2_ADA.docx) |  |  |  |

[MA.3.NSO.1.3:](https://www.cpalms.org//PreviewStandard/Preview/15309) Plot, order and compare whole numbers up to 10,000.

**Clarifications:**  
*Clarification 1:* When comparing numbers, instruction includes using an appropriately scaled number line and using place values of the thousands, hundreds, tens and ones digits.

*Clarification 2:* Number lines, scaled by 50s, 100s or 1,000s, must be provided and can be a representation of any range of numbers.

*Clarification 3:* Within this benchmark, the expectation is to use symbols (<, > or =).

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.1.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18026) | Plot, order and compare whole numbers up to 1,000. |  |  |  |
| Essential  Understandings | * Given a number up to 1,000, understand that the digit in the thousands place represents the numbers of thousands, the digit in the hundreds place represents the number of hundreds, the digit in the tens place represents the number of tens, and the digit in the ones place represents the number of ones * Use objects to represent numbers up to 1,000 using thousands, hundreds, tens, and ones * Use matching of same unit objects (thousands cube, flats, rods, unit cubes) to compare starting with the thousands place * Understand that > is “greater than”, < is “less than”, and = is “equal to” * Understand that numbers on a number line are plotted in sequential order, numbers that are lower on the number line have a lesser value, and numbers higher on the number line have a greater value |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.1.3_ADA.docx) |  |  |  |

[MA.3.NSO.1.4:](https://www.cpalms.org//PreviewStandard/Preview/15310) Round whole numbers from 0 to 1,000 to the nearest 10 or 100.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.1.AP.4:](https://www.cpalms.org/PreviewAccessPoint/Preview/18027) | Round whole numbers from 0 to 1,000 to the nearest 100 with visual support. |  |  |  |
| Essential  Understandings | * Given a number up to 1,000, understand that the digit in the thousands place represents the number of thousands, the digit in the hundreds place represents the number of hundreds, the digit in the tens place represents the number of tens, and the digit in the ones place represents the number of ones * Understand that numbers on a number line are plotted in sequential order, numbers that are lower on the number line have a lesser value, and numbers higher on the number line have a greater value * Plot whole numbers up to 1,000 on a number line * Identify which century the number being rounded is closest to on a number line * Understand that if the number being rounded is halfway between two centuries, then it rounds to the greater century |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.1.4_ADA.docx) |  |  |  |

[MA.3.NSO.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15311) Add and subtract multi-digit whole numbers including using a standard algorithm with procedural fluency.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.2.AP.1:](https://www.cpalms.org/PreviewAccessPoint/Preview/18028) | Apply a strategy to add and subtract two two-digit whole numbers. |  |  |  |
| Essential  Understandings | * Understand that the digit in the hundreds place represents the number of hundreds, the digit in the tens place represents the number of tens and the digit in the ones place represents the number of ones * Use objects (e.g., ten-rods and unit cubes) to represent two-digit numbers as tens and ones * Understand that addition is “adding to” and subtraction is “take from” * Understand that a group of 10 ones is equal to 1 ten (e.g., 10-unit cubes is equal to 1 ten-rod) and that 1 ten is equal to a group of 10 ones (e.g., 1 ten-rod is equal to 10-unit cubes) * Understand that a group of 10 tens is equal to 1 hundred (e.g., 10 ten-rods is equal to 1 hundred flat) and that 1 hundred is equal to 10 tens (e.g., 1 hundred flat is equal to 10 ten-rods) * Understand that in adding two-digit numbers one adds tens and tens and ones and ones and sometimes it is necessary to compose a ten and/or a hundred * Understand that in subtracting two-digit numbers one subtracts tens from tens and ones from ones and sometimes it is necessary to decompose a ten |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.2.1_ADA.docx) |  |  |  |

[MA.3.NSO.2.2:](https://www.cpalms.org//PreviewStandard/Preview/15312) Explore multiplication of two whole numbers with products from 0 to 144, and related division facts.

**Clarifications:**  
*Clarification 1:* Instruction includes equal groups, arrays, area models and equations.

*Clarification 2:* Within the benchmark, it is the expectation that one problem can be represented in multiple ways and understanding how the different representations are related to each other.

*Clarification 3:* Factors and divisors are limited to up to 12.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.2.AP.2:](https://www.cpalms.org/PreviewAccessPoint/Preview/18029) | Explore the concept of multiplication of two single-digit whole numbers using objects. |  |  |  |
| Essential  Understandings | * Understand the concept of equal groups * Distinguish between the number of groups and the number in each group. * Understand the concept of a rectangular array * Distinguish between the number of rows and the number in each row * When given up to 20 objects, organized in equal groups or in a rectangular array, use 1:1 correspondence to find the total number of objects * When given up to 20 objects, organized in equal groups or in a rectangular array, recognize that the number in each group/row is the same and can be repeatedly added to find the total |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.2.2_ADA.docx) |  |  |  |

[MA.3.NSO.2.3:](https://www.cpalms.org//PreviewStandard/Preview/15313) Multiply a one-digit whole number by a multiple of 10, up to 90, or a multiple of 100, up to 900, with procedural reliability.

**Clarifications:**  
*Clarification 1:* When multiplying one-digit numbers by multiples of 10 or 100, instruction focuses on methods that are based on place value.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.2.AP.3:](https://www.cpalms.org/PreviewAccessPoint/Preview/18030) | Explore multiplying a one-digit whole number by 10. |  |  |  |
| Essential  Understandings | * Represent multiplication situations using objects organized in equal groups or in rectangular arrays and use the representations to find the total * Understand that a group of 10 ones is equal to 1 ten (e.g., 10-unit cubes is equal to 1 ten-rod) * Skip count by 10’s up to 90 |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.2.3_ADA.docx) |  |  |  |

[MA.3.NSO.2.4:](https://www.cpalms.org//PreviewStandard/Preview/15314) Multiply two whole numbers from 0 to 12 and divide using related facts with procedural reliability.

**Clarifications:**  
*Clarification 1:* Instruction focuses on helping a student choose a method they can use reliably.

**Related Access Points**

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [MA.3.NSO.2.AP.4:](https://www.cpalms.org/PreviewAccessPoint/Preview/18031) | Explore the relationship between multiplication and division in order to multiply and divide. Multiplication may not exceed two single-digit whole numbers and their related division facts. |  |  |  |
| Essential  Understandings | * Understand the concept of equal groups * Distinguish between the number of groups, the number in each group, and the total number * Represent multiplication situations using objects organized in equal groups and use the representations to find the total * Represent division situations by organizing objects in equal groups and use the representations to find the number of groups or the number in each group |  |  |  |
| Resources: | [Element Card](https://www.accesstofls.org/core_curriculum_resources/Math/BEST/Element_Cards/Elementary/third/MA.3.NSO.2.4_ADA.docx) |  |  |  |

[MA.K12.MTR.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15875) Actively participate in effortful learning both individually and collectively. Mathematicians who participate in effortful learning both individually and with others:

* Analyze the problem in a way that makes sense given the task.
* Ask questions that will help with solving the task.
* Build perseverance by modifying methods as needed while solving a challenging task.
* Stay engaged and maintain a positive mindset when working to solve tasks.
* Help and support each other when attempting a new method or approach.

**Clarifications:**  
Teachers who encourage students to participate actively in effortful learning both individually and with others:

* Cultivate a community of growth mindset learners.
* Foster perseverance in students by choosing tasks that are challenging.
* Develop students’ ability to analyze and problem solve.
* Recognize students’ effort when solving challenging problems.

[MA.K12.MTR.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15876) Demonstrate understanding by representing problems in multiple ways. Mathematicians who demonstrate understanding by representing problems in multiple ways:

* Build understanding through modeling and using manipulatives.
* Represent solutions to problems in multiple ways using objects, drawings, tables, graphs, and equations.
* Progress from modeling problems with objects and drawings to using algorithms and equations.
* Express connections between concepts and representations.
* Choose a representation based on the given context or purpose.

**Clarifications:**  
Teachers who encourage students to demonstrate understanding by representing problems in multiple ways:

* Help students make connections between concepts and representations.
* Provide opportunities for students to use manipulatives when investigating concepts.
* Guide students from concrete to pictorial to abstract representations as understanding progresses.
* Show students that various representations can have different purposes and can be useful in different situations.

[MA.K12.MTR.3.1:](https://www.cpalms.org//PreviewStandard/Preview/15877) Complete tasks with mathematical fluency.

Mathematicians who complete tasks with mathematical fluency:

* Select efficient and appropriate methods for solving problems within the given context.
* Maintain flexibility and accuracy while performing procedures and mental calculations.
* Complete tasks accurately and with confidence.
* Adapt procedures to apply them to a new context.
* Use feedback to improve efficiency when performing calculations.

**Clarifications:**  
Teachers who encourage students to complete tasks with mathematical fluency:

* Provide students with the flexibility to solve problems by selecting a procedure that allows them to solve efficiently and accurately.
* Offer multiple opportunities for students to practice efficient and generalizable methods.
* Provide opportunities for students to reflect on the method they used and determine if a more efficient method could have been used.

[MA.K12.MTR.4.1:](https://www.cpalms.org//PreviewStandard/Preview/15878) Engage in discussions that reflect on the mathematical thinking of self and others.

Mathematicians who engage in discussions that reflect on the mathematical thinking of self and others:

* Communicate mathematical ideas, vocabulary, and methods effectively.
* Analyze the mathematical thinking of others.
* Compare the efficiency of a method to those expressed by others.
* Recognize errors and suggest how to correctly solve the task.
* Justify results by explaining methods and processes.
* Construct arguments based on evidence.

**Clarifications:**  
Teachers who encourage students to engage in discussions that reflect on the mathematical thinking of self and others:

* Establish a culture in which students ask questions of the teacher and their peers, and error is an opportunity for learning.
* Create opportunities for students to discuss their thinking with peers.
* Select, sequence and present student work to advance and deepen understanding of correct and increasingly efficient methods.
* Develop students’ ability to justify methods and compare their responses to the responses of their peers.

[MA.K12.MTR.5.1:](https://www.cpalms.org//PreviewStandard/Preview/15879) Use patterns and structure to help understand and connect mathematical concepts.

Mathematicians who use patterns and structure to help understand and connect mathematical concepts:

* Focus on relevant details within a problem.
* Create plans and procedures to logically order events, steps, or ideas to solve problems.
* Decompose a complex problem into manageable parts.
* Relate previously learned concepts to new concepts.
* Look for similarities among problems.
* Connect solutions of problems to more complicated large-scale situations.

**Clarifications:**  
Teachers who encourage students to use patterns and structure to help understand and connect mathematical concepts:

* Help students recognize the patterns in the world around them and connect these patterns to mathematical concepts.
* Support students to develop generalizations based on the similarities found among problems.
* Provide opportunities for students to create plans and procedures to solve problems.
* Develop students’ ability to construct relationships between their current understanding and more sophisticated ways of thinking.

[MA.K12.MTR.6.1:](https://www.cpalms.org//PreviewStandard/Preview/15880) Assess the reasonableness of solutions.

Mathematicians who assess the reasonableness of solutions:

* Estimate to discover possible solutions.
* Use benchmark quantities to determine if a solution makes sense.
* Check calculations when solving problems.
* Verify possible solutions by explaining the methods used.
* Evaluate results based on the given context.

**Clarifications:**  
Teachers who encourage students to assess the reasonableness of solutions:

* Have students estimate or predict solutions prior to solving.
* Prompt students to continually ask, “Does this solution make sense? How do you know?”
* Reinforce students check their work as they progress within and after a task.
* Strengthen students’ ability to verify solutions through justifications.

[MA.K12.MTR.7.1:](https://www.cpalms.org//PreviewStandard/Preview/15881) Apply mathematics to real-world contexts.

Mathematicians who apply mathematics to real-world contexts:

* Connect mathematical concepts to everyday experiences.
* Use models and methods to understand, represent and solve problems.
* Perform investigations to gather data or determine if a method is appropriate. • Redesign models and methods to improve accuracy or efficiency.

**Clarifications:**  
Teachers who encourage students to apply mathematics to real-world contexts:

* Provide opportunities for students to create models, both concrete and abstract, and perform investigations.
* Challenge students to question the accuracy of their models and methods.
* Support students as they validate conclusions by comparing them to the given situation.
* Indicate how various concepts can be applied to other disciplines.

[ELA.K12.EE.1.1:](https://www.cpalms.org//PreviewStandard/Preview/15201)

Cite evidence to explain and justify reasoning.

**Clarifications:**  
K-1 Students include textual evidence in their oral communication with guidance and support from adults. The evidence can consist of details from the text without naming the text. During 1st grade, students learn how to incorporate the evidence in their writing.

2-3 Students include relevant textual evidence in their written and oral communication. Students should name the text when they refer to it. In 3rd grade, students should use a combination of direct and indirect citations.

4-5 Students continue with previous skills and reference comments made by speakers and peers. Students cite texts that they have directly quoted, paraphrased, or used for information. When writing, students will use the form of citation dictated by the instructor or the style guide referenced by the instructor.

6-8 Students continue with previous skills and use a style guide to create a proper citation.

9-12 Students continue with previous skills and should be aware of existing style guides and the ways in which they differ.

[ELA.K12.EE.2.1:](https://www.cpalms.org//PreviewStandard/Preview/15202) Read and comprehend grade-level complex texts proficiently.

**Clarifications:**  
See [Text Complexity](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/la/appendixb.pdf) for grade-level complexity bands and a text complexity rubric.

[ELA.K12.EE.3.1:](https://www.cpalms.org//PreviewStandard/Preview/15203) Make inferences to support comprehension.

**Clarifications:**  
Students will make inferences before the words infer or inference are introduced. Kindergarten students will answer questions like “Why is the girl smiling?” or make predictions about what will happen based on the title page. Students will use the terms and apply them in 2nd grade and beyond.

[ELA.K12.EE.4.1:](https://www.cpalms.org//PreviewStandard/Preview/15204) Use appropriate collaborative techniques and active listening skills when engaging in discussions in a variety of situations.

**Clarifications:**  
In kindergarten, students learn to listen to one another respectfully.

In grades 1-2, students build upon these skills by justifying what they are thinking. For example: “I think \_\_\_\_\_\_\_\_ because \_\_\_\_\_\_\_.” The collaborative conversations are becoming academic conversations.

In grades 3-12, students engage in academic conversations discussing claims and justifying their reasoning, refining, and applying skills. Students build on ideas, propel the conversation, and support claims and counterclaims with evidence.

[ELA.K12.EE.5.1:](https://www.cpalms.org//PreviewStandard/Preview/15205) Use the accepted rules governing a specific format to create quality work.

**Clarifications:**  
Students will incorporate skills learned into work products to produce quality work. For students to incorporate these skills appropriately, they must receive instruction. A 3rd grade student creating a poster board display must have instruction in how to effectively present information to do quality work.

[ELA.K12.EE.6.1:](https://www.cpalms.org//PreviewStandard/Preview/15206) Use appropriate voice and tone when speaking or writing.

**Clarifications:**  
In kindergarten and 1st grade, students learn the difference between formal and informal language. For example, the way we talk to our friends differs from the way we speak to adults. In 2nd grade and beyond, students practice appropriate social and academic language to discuss texts.

[ELD.K12.ELL.MA.1:](https://www.cpalms.org//PreviewStandard/Preview/8642) English language learners communicate information, ideas, and concepts necessary for academic success in the content area of Mathematics.

[ELD.K12.ELL.SI.1:](https://www.cpalms.org//PreviewStandard/Preview/8640) English language learners communicate for social and instructional purposes within the school setting.