

This resource is only to be used during school closure due to COVID-19. The Department identified content standards that are prerequisites for student success in the next grade level. The standards should not be used in connection with MCAS expectations or referenced in preparing students for the MCAS for any grade level. Since most standards will already have been taught prior to the closures, we anticipate that significant time would still be spent on reinforcement as an integral part of opposed to advancing new concepts.

Grade 3

English Language Arts and Literacy

Reading Literature and Informational [RL/RI]

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 3.

Reading Literature [RL]

2. Retell stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in a text.
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from figurative language.

Reading Informational [RI]

2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Identify and know the meaning of the most common prefixes and derivational suffixes.
 - b. Decode words with common Latin suffixes.
 - c. Decode multisyllable words.
 - d. Read grade-appropriate irregularly spelled words.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.

- b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
- c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing [W]

1. Write opinion pieces on topics or texts, supporting an opinion with reasons.
 - a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
 - b. Provide reasons that support the opinion.
 - c. Use linking words and phrases (e.g., *because, therefore, since, for example*) to connect opinion and reasons.
 - d. Provide a concluding statement or section.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a. Introduce a topic and group-related information together; include illustrations when useful to aiding comprehension.
 - b. Develop the topic with facts, definitions, and details.
 - c. Use linking words and phrases (e.g., *also, another, and, more, but*) to connect ideas within categories of information.
 - d. Provide a concluding statement or section.
4. Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3).

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades.

Sentence Structure and Meaning

- a. Produce, expand, and rearrange complete simple, compound, and complex sentences.
- b. Ensure subject-verb and pronoun-antecedent agreement.⁹
- c. Use verbs in the present, past, and future tenses and choose among them depending on the overall meaning of the sentence.
- d. Use coordinating and subordinating conjunctions and choose between them depending on the overall meaning of the sentence.
- e. Form and use comparative and superlative adjectives and adverbs and choose between them depending on what is to be modified and the overall meaning of the sentence.

Word Usage

- f. Use abstract nouns.
- g. Form and use regular and irregular plural nouns and the past tense of regular and irregular verbs.

⁹These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting.
 - b. Capitalize appropriate words in titles.
 - c. Use commas in addresses.
 - d. Use commas and quotation marks in dialogue.
 - e. Form and use possessives.
 - f. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
 - g. Demonstrate understanding that numerals used at the beginning of a sentence are written as words and capitalized (e.g., “Three pandas could be seen eating leaves high in the bamboo grove.”).
 - h. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
 - i. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases,⁸ including those that signal spatial and temporal relationships.

Mathematics

Operations and Algebraic Thinking

3.OA

A. Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in five groups of seven objects each.
2. Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹⁰
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.

B. Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations to multiply.¹¹
6. Understand division as an unknown-factor problem.

C. Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of

¹⁰See Glossary, Table 2.

¹¹Students need not use formal terms for these properties. Students are not expected to use distributive notation.

operations. By the end of grade 3, know from memory all products of two single-digit numbers and related division facts.

Number and Operations in Base Ten

3.NBT

A. Use place value understanding and properties of operations to perform multi-digit arithmetic.

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2. Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Number and Operations—Fractions

3.NF

A. Develop understanding of fractions as numbers for fractions with denominators 2, 3, 4, 6, and 8.

1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole (a single unit) is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
 - a. Represent a unit fraction, $\frac{1}{b}$, on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$ and that the fraction $\frac{1}{b}$ is located $\frac{1}{b}$ of a whole unit from 0 on the number line.
 - b. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
 - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
 - b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
 - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
 - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data

3.MD

C. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

7. Relate area to the operations of multiplication and addition.
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¹² A range of algorithms may be used.

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

Geometry

3.G

A. Reason with shapes and their attributes.

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Compare and classify shapes by their sides and angles (right angle/non-right angle). Recognize rhombuses, rectangles, squares, and trapezoids as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

Science and Technology/Engineering

Earth and Space Sciences

3-ESS

- 2- **ESS2-2.** Obtain and summarize information about the climate of different regions of the world to illustrate that typical weather conditions over a year vary by region.

Life Science

3-LS

3-LS3-1. Provide evidence, including through the analysis of data, that plants and animals have traits inherited from parents and that variation of these traits exist in a group of similar organisms.

3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals within the same species may provide advantages to these individuals in their survival and reproduction.

Physical Science

3-PS

- 3- **PS2-1.** Provide evidence to explain the effect of multiple forces, including friction, on an object. Include balanced forces that do not change the motion of the object and unbalanced forces that do change the motion of the object.

History and Social Science

Practice Standard 3: Organize information from multiple sources

Teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standard 3. Content Standards from Topics 5 and 6 are identified here with the assumption that earlier Topics were introduced earlier in the year.

Content Topic 5: The Puritans, the Massachusetts Bay Colony, Native Peoples, and Africans [3.T5]

4. Explain that in the 17th and 18th century slavery was legal in all the French, Dutch, and Spanish, and English colonies, including Massachusetts and that colonial Massachusetts had both free and enslaved Africans in its population.

Content Topic 6: Massachusetts in the 18th century through the American Revolution [3.T6]

2. Analyze the connection between events, locations, and individuals in Massachusetts in the early 1770s and the beginning of the American Revolution, using sources such as historical maps, paintings, and texts of the period.
4. Explain how, after the Revolution, the leaders of the new United States had to write a plan for how to govern the nation, and that this plan is called the Constitution. Explain that the rights of citizens are spelled out in the Constitution's first ten Amendments, known as the Bill of Rights; explain that full citizenship rights were restricted to white male property owners over the age of 21 in the new Republic.

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Grade 4

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Refer to details and examples in a text when explaining what the text states explicitly and when drawing inferences from the text.
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 4.

Reading Literature [RL]

2. Determine a theme of a story, drama, or poem from details in the text; summarize a text.
3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean); explain how figurative language (e.g., simile, metaphor) enriches a text.

Reading Informational [RI]

2. Determine the main idea of a text and explain how it is supported by key details; summarize a text.
3. Explain events, procedures, ideas, or concepts in a historical, scientific, mathematical, or technical text, including what happened and why, based on specific information in the text.
8. Explain how an author uses reasons and evidence to support particular points in a text.

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.
 - b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing [W]

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
 - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped in paragraphs and sections to support the writer's purpose.
 - b. Provide reasons that are supported by facts and details.
 - c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*).
 - d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a. Introduce a topic clearly and group related information in paragraphs and sections; include text features (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
 - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
 - c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*).
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Provide a concluding statement or section related to the information or explanation presented.
4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3)

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 4 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure and Meaning

 - a. Produce complete sentences, using knowledge of subject and predicate to recognize and correct inappropriate sentence fragments and run-on sentences.¹³
 - b. Correctly use frequently confused words (e.g., *their/there*).
 - c. Use helping verbs, also known as auxiliaries (e.g., *can, may, might, should*), to convey various conditions of possibility, likelihood, obligation, or permission, choosing among helping verbs depending on the overall meaning of the sentence.
 - d. Use relative pronouns and relative adverbs to add more information about a noun or verb used in a sentence.

¹³ These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

- e. Form and use prepositional phrases in sentences to add more information about qualities such as location, time, agency, and direction.
- Word Usage*
- f. Form and use progressive verb tenses.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting; write their given name signature in cursive.
 - b. Use correct capitalization.
 - c. Use commas and quotation marks to mark direct speech and quotations from a text.
 - d. Use a comma before a coordinating conjunction in a compound sentence.
 - e. Spell grade-appropriate words correctly, consulting references as needed.
 6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed*, *whined*, *stammered*) and that are basic to a particular topic

Mathematics

Operations and Algebraic Thinking

4.OA

A. Use the four operations with whole numbers to solve problems.

2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.¹⁴
3. Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
 - a. Know multiplication facts and related division facts through 12 x 12.

Number and Operations in Base Ten

4.NBT

A. Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000.

2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

B. Use place value understanding and properties of operations to perform multi-digit arithmetic on whole numbers less than or equal to 1,000,000.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations.

¹⁴ See Glossary, Table 2.

Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions

4.NF

A. Extend understanding of fraction equivalence and ordering for fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

1. Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n \times a)}{(n \times b)}$ by using visual fraction models, with attention to how the numbers and sizes of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions, including fractions greater than 1.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

B. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers for fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

3. Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$.
 - a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. (The whole can be a set of objects.)
 - b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using drawings or visual fraction models. *Examples:* $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.
 - c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
 - d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using drawings or visual fraction models and equations to represent the problem.

C. Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.¹⁵
6. Use decimal notation to represent fractions with denominators 10 or 100.
7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.

¹⁵ Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition

and subtraction with unlike denominators in general is not a requirement at this grade.

Measurement and Data

4.MD

A. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
2. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.

Geometry

4.G

A. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Science and Technology/Engineering

Earth and Space Sciences

4-ESS

4-ESS2-1. Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved around through erosion.

Life Science

4-LS

4-LS1-1. Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction.

Physical Science

4-PS

4-PS3-2. Make observations to show that energy can be transferred from place to place by sound, light, heat, and electric currents.

4-PS4-2. Develop a model to describe that light must reflect off an object and enter the eye for the object to be seen.

History and Social Science

Practice Standard 3: Organize information from multiple sources

Teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standard 3. Content Standards from Topic 4 are identified here with the assumption that earlier Topics were introduced earlier in the year.

Content Topic 4: The Expansion of the United States over time and its regions today [4.T4]

3. Explain that many different groups of people immigrated to the United States from other places voluntarily and some were brought to the United States against their will (as in the case of people of Africa).
4. Show understanding that in the middle of the 19th century, the people of the United States were deeply divided over the question of slavery and its expansion into newly settled parts of the West, which led to the Civil War from 1861 to 1865.

Content Topic 4a: The Northeast [4.T4a]

1. On a political map of the United States, locate the states in the Northeast.
5. Describe the diverse cultural nature of the region, including contributions of Native Peoples (e.g., Wampanoag, Iroquois, Abenaki), Africans, Europeans (e.g., the early settlements of the Dutch in New York, French near Canada, Germans in Pennsylvania, the English in Massachusetts, Rhode Island, Connecticut, Vermont and New Hampshire, subsequent 19th and early 20th century immigration by groups such as Irish, Italian, Portuguese, and Eastern Europeans) and various other immigrant groups from other regions of the world in the later 20th and 21st centuries (e.g., Puerto Ricans, Dominicans, Mexicans, Salvadorans, Colombians, Guatemalans, Brazilians, Haitians, Vietnamese, Cambodians, Chinese, Indians, and Somalis).

The Southeast, Midwest, Southwest, and West [4.T4b-e]

1. On a political map of the United States, locate the states in the Southeast, Midwest, Southwest, and West.