Elementary Pacing Guides for MAP Preparation

Grade 4-Technology Tools

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
STUDY ISLAND & MASTERY CONNECT	ACUITY & Smarter Balance	IXL & PEARSON	ACUITY & Smarter Balance	STUDY ISLAND & MASTERY CONNECT

ELA

RL 4.4 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). Students will continue to tell the meaning of words and phrases in a text and focus specifically on mythological characters. Students should be able to: • Identify mythological characters. • Connect words and phrases with specific mythological characters. • Respond to questions and prompts about the meaning of words and phrases.

RL 4.5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.

Students will find the similarities and differences between poems, drama, and prose, and refer to the structural elements of poems. Poetry creates word pictures, describes moments, or expresses feelings. There are many different forms of poetry. examples: • free verse poem do not rhyme. • lyrical poem uses imagery to express a feeling and uses rhythm, regular meter, and rhyme.

Vocabulary: myth, mythological, prose, structural elements, verse, herculean, Pandora's box, Achilles' heel, context clues, phrases

R.L.3.10. By the end of the year read and comprehends literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently, with scaffolding as needed at the high end of the range.

"The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade- --by---grade "staircase" of increasing text complexity. Students must also show a steadily growing ability to discern more from and make fuller use of text including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts." Students should encounter appropriately complex texts at each grade level in order to develop the mature language skills and the conceptual knowledge needed for success in school and life.

Vocabulary: R.L 3.10 fluency, proficiently, comprehension

RI. 4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Historical text includes many facts about important events. This type of text is read to gain knowledge of a particular era and how it shaped the future. Understanding the events within a historical text can be done with a variety of strategies. One of the most useful strategies is using cause and effect. Scientific text includes many facts, ideas, concepts and procedures. The purpose for reading scientific text is to gain knowledge in a particular area of science. One of the most useful strategies is using cause and effect. Technical Text can include charts, diagrams, illustrations and other visuals to help support comprehension. The purpose is to learn about a subject or how to complete a task.

R.I.4.4. Determine the meaning of general academic and domain –specific words or phrases in a text relevant to a grade 4 topic or subject area.

Fourth grade students continue to find the meaning of general vocabulary words specific to fourth grade topics or subjects. Students should be able to: Use context clues or the glossary/dictionary to determine the meaning of unknown words.

RI 4. 5. Describe the overall structure (e.g., chronology, comparison, cause/effect, and problem/solution) of events, ideas, concepts, or information in a text or part of a text.

When you understand the way an author has organized the text, you are better able to understand that text. Authors make choices about how they present the information in a text based on what they have to say. This organization is called text structure. **Chronological Text Structure**---Chronological order is the order in which things happen. It is also called time order Comparison and Contrast Text Structure- --When you compare and contrast two or more people, places, events, or things, you find ways in which they are alike or different. Signal words such as like, both, also, most, but, whereas, and however may tell you when things are being compared and contrasted. **Cause and Effect Text Structure**---Signal words such as because, since, and as a result may help you determine what caused something to happen. A cause is why something happens. To determine the cause, ask "Why did it happen?" An effect is what happens. To determine the effect, ask "What happened?" **Problem and Solution Text Structure**---The author will present a problem that needs to be solved. A problem can be between individuals or groups, or it might be with something that is going on in the world. A problem might even occur with just one person. Identifying the problem and solution will help you understand the text better.

RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

Visual information includes graphs, time lines, diagrams, and web animations. Such information is useful for connecting key ideas in a text and explaining complex topics. Graphs, for example, can help you

understand a large amount of information much more quickly, and sometimes more effectively, than written text alone.

RI.4.10. By the end of the year, read, and comprehends informational texts, including history/social studies, science, and technical texts, in the grades 4---5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Students will begin to practice evaluating and making judgments about texts in this standard, including why the author may have written the selection or what the author wants you to learn. Students should develop the ability to recognize the author's reasoning by finding support within the text.

RF 4.3 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.

Students continue learning specific strategies for decoding words in texts. They are required to apply the specific strategies for decoding and spellingmulti---syllabicwords. Identify, read, and write words with Prefixes in---, non---,re--- Suffixes --- ion Words with: Long a and I (ai, ay, igh) Long e and o (ow, oa, ea, ee,) Long e (---y, ie) Long u (u, oo, ew, u---e, ui) Vowels Short vowels VCCV Digraphs ng, nk, ph, wh, Spelling Words with ear, ir, our, ur Homophones Compound words Multisyllablic words Spell/shun/(tion---action,sion---division Consonants /j/ --- dge, ge, /ks/ --- ex, and /kw/--- qu Words w/ silent consonants – autumn, island… Greek word parts (graph, micro, tele, phon, meter Latin rootsrupt {abrupt} , dict {dictate}, dis {dislocate}, port {export}, loc--- {locat}, Schwa

Vocabulary: affix, root, syllable, prefix, suffix, multisyllabic, context

RF 4.4 Read with sufficient accuracy and fluency to support comprehension a. Read on---level text with purpose and understanding. Fluent readers are able to focus attention on the meaning of the text. b. Read grade---level prose and poetry orally with accuracy, appropriate rate, and expression. Fluency helps the reader process language for meaning and enjoyment. c. Use context to confirm or self- --correct word recognition and understanding, rereading as necessary. Readers at this stage reread texts as needed to support understanding.

Vocabulary: fluency, accuracy, purpose, prose, rate, expression, context, self---correct, rereading.

W 4.2 Write informative/ explanatory texts to examine a topic and convey ideas and information a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. Students should plan out steps to help them create a draft of a how to or information writing piece. A strong beginning will clearly state the topic and capture the readers' attention. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. Students need to make sure that their details support the topic and are organized in a way that makes sense. Include facts, definitions, details or examples to help develop the paragraphs. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). Students

should be developing the use of more complex linking phrases like (for example, also and because). d. Use precise language and domain—specific vocabulary to inform about or explain the topic. Precise or exact words help the reader understand the process or information. Specific content vocabulary such as in science or social studies help to explain the topic clearly. e. Provide a concluding statement or section related to the information. Fourth grade students are required to include a concluding statement or section in their writing. Students should use strategies for concluding their thoughts (using summary statements) when writing.

Vocabulary: writing process, organizer, plan, draft, edit, revise, publish, hook, headings, subheadings, main idea, supporting details, snappy ending

W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. Fourth grade students are expected to produce writing that is clear and understandable to the reader. Task (type of writing assignment) and purpose (the writer's designated reason for writing) should be reflected in the student's organization and development of a topic.

W 4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1---3 up to and including grade 4). With assistance from adults and peers, students should develop revising and editing skills. In order to do so, students need to understand how to change word choice and sentence structure in their writing to strengthen their piece. They need assistance with planning for writing using graphic organizers (story frames, story mountains, story maps). They also need to develop the ability to recognize spelling, grammar, and punctuation errors and have strategies for correcting these errors with assistance (conferences, check sheets, peer editing).

W 4.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. Students in fourth grade are developing strategies with peers and adults to use digital tools. At this grade level, they should not only use technology for producing and publishing writing, but also to collaborate with others. Fourth grade students are required to be proficient in keyboarding skills (typing at least one page in a single setting).

Vocabulary: purpose, audience, development, organization, task, planning, revising, editing, internet, publish

W 4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. Students are required to research a topic through investigation of the topic. Investigation includes exploring a topic in greater detail by developing a research question that helps bring focus to the topic. Students learn how to locate information from print and digital sources as well as integrate information from their own experiences.

W 4. 8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. Whatever format, be sure to include research question and what was learned from the investigation. Think of two or three

key points to share, and provide some facts, details, or examples that explain each point. Gather any charts, photographs, illustrations, maps, or other visual aids to include a list of the sources used to gather your information. Cite the title, author, publisher, and publication date for each source.

W 4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. Students must prove each point with evidence from the text. Students will combine information from several texts about the same subject in a written or oral response that demonstrates knowledge of the subject. Use grade level reading strategies to compare and contrast two or more specific details in a text.

Vocabulary: informational text, reflection, research, evidence, digital sources, categorize

L 4.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. Students at this level are spelling grade level words appropriately and consulting reference materials for spelling as needed.

L 4.4 Determine or clarify the meaning of unknown and multiple---meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. When you come to a word or phrase you do not know in a passage, there are several strategies you can use to determine meaning. ---use context clues "Context" refers to the words in the same or surrounding sentences. These other words and sentences can help you figure out the unknown word's meaning. Sometimes writers use definitions or examples to help readers understand unfamiliar words. b. Use common, grade--- appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph) Determine Meaning of Words and Phrases When you come to a word or phrase you do not know in a passage, there are several strategies you can use to determine meaning. ---think about word parts Many English words are formed by adding prefixes and suffixes to a root word. Prefixes, suffixes, and roots often come from Latin and Greek. A prefix is a word part that is added to the beginning of a word to change its meaning. pre---, sub---, in---/im--- A suffix is a word part that is added to the end of a word to change its meaning. ---able/---ible, ---er/---or, ---fy/---ifyThe root of a word is its basic meaning before a prefix or a suffix is added to it. Ex. port = carry tele = far; c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. Determine Meaning of Words and Phrases: When you come to a word or phrase you do not know in a passage, there are several strategies you can use to determine meaning. Dictionaries, glossaries, and a thesaurus are helpful tools.

L4.5. Demonstrate understanding of figurative language, word relationships and nuances in word meanings. a.Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. A **simile** compares two things that are not alike by using the words like or as. A **metaphor** compares two things that are not alike but without using like or as. **Similes**: Use the word like or as to signal the comparison. • Example: The cat's eyes glowed in the dark like fiery coals. **Metaphors**: States that one thing is the other; does NOT use like or as. • Example: The cat's eyes were fiery coals in the

dark. Recognize and explain the meaning of common idioms, adages, and proverbs. An **idiom** is an expression common to a particular culture that does not mean what it literally says. You have to learn the meanings of idioms, just like you learn the meanings of words. For example, to play it by ear means "to do something without planning." A proverb is a statement of practical wisdom expressed in a simple way. An example of a proverb is "Beauty is skin deep," which means that someone's appearance doesn't tell you what he or she is really like. An adage is a well---known proverb that has been used for a long time. An example of an adage would be "Actions speak louder than words," which means that doing something is more effective than just talking about it. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms) **Synonyms** are words that have the same, or nearly the same, meaning. In order to be considered synonyms, two words must be the same part of speech. For example, in the sentence below, the verbs destroyed and ruined are synonyms. The hurricane destroyed several buildings and ruined the power lines. **Antonyms** are words that have opposite meanings. In order to be antonyms, two words must be the same part of speech. Words like but, not, on the other hand, instead of, and rather often signal that an antonym might be used in the text. For example, in the sentence below, the adjectives humid and dry are antonyms. Some people dislike hot humid weather but enjoy the dry heat of the desert.

L 4.6 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 (e.g., wildlife, conservation, and endangered when discussing animal preservation). Using precise language is important in expressing exactly what you mean. For example, an author who writes "the snake slithered through the grass "gives a clearer—and more interesting—description of that action than an author who writes "the snake moved through the grass." Words such as slithered and moved express action. When you choose an action verb, think about exactly what kind of information you want to give your readers or listeners. What do you want them to visualize? Ex. angry, annoyed, furious, irritated

Vocabulary: nuances, adages, proverbs, acquire, domain---specific, context clues, affix, prefix, suffix, root, dictionary, glossary, thesaurus, pronunciation, simile, metaphor, idiom, synonym, antonym

MATH

4.NBT.5. Students who develop flexibility in breaking numbers apart (decomposing numbers) have a better understanding of the importance of place value and the distributive property in multi-digit multiplication. Students use base ten blocks, area models, partitioning, compensation strategies, etc. when multiplying whole numbers and use words and diagrams to explain their thinking. They use the terms factor and product when communicating their reasoning. Multiple strategies enable students to develop fluency with multiplication and transfer that understanding to division. Use of the standard algorithm for multiplication and understanding why it works, is an expectation in the 5th grade. This standard calls for students to multiply numbers using a variety of strategies. Example: There are 25 dozen cookies in the bakery. What is the total number of cookies at the bakery?

4.NBT.6 In fourth grade, students build on their third grade work with division within 100. Students need opportunities to develop their understandings by using problems in and out of context. Examples : A 4th grade teacher bought 4 new pencil boxes. She has 260 pencils. She wants to put the pencils in the boxes so that each box has the same number of pencils. How many pencils will there be in each box? Using Base 10 Blocks: Students build 260 with base 10 blocks and distribute them into 4 equal groups. Some students may need to trade the 2 hundreds for tens but others may easily recognize that 200 divided by 4 is 50. Using Place Value: 260 ÷ 4 = (200 ÷ 4) + (60 ÷ 4) Using Multiplication: 4 x 50 = 200, 4 x 10 = 40, 4 x 5 = 20; 50 + 10 + 5 = 65; so 260 ÷ 4 = 65

Vocabulary: partial products, quotients, remainders, dividends, divisors, multiplication, division, equations, rectangular arrays, area models, compatible numbers

4.NF.1 This standard refers to visual fraction models. This includes area models, linear models (number lines) or it could be a collection/set models. This standard extends the work in third grade by using additional denominators (5, 10, 12, and 100). Students can use visual models or applets to generate equivalent fractions. Example: All the area models show 1/2. The second model shows 2/4 but also shows that 1/2 and 2/4 are equivalent fractions because their areas are equivalent. When a horizontal line is drawn through the center of the model, the number of equal parts doubles and size of the parts is halved. Students will begin to notice connections between the models and fractions in the way both the parts and wholes are counted and begin to generate a rule for writing equivalent fractions.

4.NF.2 Calls students to compare fractions by creating visual fraction models or finding common denominators or numerators. Students' experiences should focus on visual fraction models rather than algorithms. When tested, models may or may not be included. Students should learn to draw fraction models to help them compare. Students must also recognize that they must consider the size of the whole when comparing fractions (ie, 1/2 and 1/8 of two medium pizzas is very different from 1/2 of one medium and 1/8 of one large).

4.NF.3.a A fraction with a numerator of one is called a unit fraction. When students investigate fractions other than unit fractions, such as 2/3, they should be able to decompose the non-unit fraction into a combination of several unit fractions. Example: 2/3 = 1/3 + 1/3 Being able to visualize this decomposition into unit fractions helps students when adding or subtracting fractions. Students need multiple opportunities to work with mixed numbers and be able to decompose them in more than one way. Students may use visual models to help develop this understanding. Example 1 1/4 - 3/4 = 4/4 + 1/4 = 5/4 5 /4 – 3/4 = 2/4 or 1/2 Example of word problem: Mary and Lacey decide to share a pizza. Mary ate 3/6 and Lacey ate 2/6 of the pizza. How much of the pizza did the girls eat together? Solution: The amount of pizza Mary ate can be thought of as 3/6 or 1/6 and 1/6 and 1/6. The amount of pizza Lacey ate can be thought of as 1/6 and 1/6. The total amount of pizza they ate is 1/6 + 1/6 + 1/6 + 1/6 + 1/6 or 5/6 of the whole pizza. 4.NF.3b Students should justify their breaking apart (decomposing) of fractions using visual fraction models. The concept of turning mixed numbers into improper fractions needs to be emphasized using visual fraction models.

4.NF.3c Mixed numbers are introduced for the first time in Fourth Grade. Students should have ample experiences of adding and subtracting mixed numbers where they work with mixed numbers or convert mixed numbers into improper fractions.

4.NF.3d A cake recipe calls for you to use 3/4 cup of milk, 1/4 cup of oil, and 2/4 cup of water. How much liquid was needed to make the cake?

Vocabulary: fraction, addition, subtraction, joining and separating parts, decompose, decomposition, mixed numbers, numerator, denominator, benchmark fraction, equivalent fractions, improper fraction, decimal point, tenths, hundredths, thousandths, fraction strip, part of a whole

4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. **4.NF.4a** Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 x (1/4), recording the conclusion by the equation 5/4 = 5 x (1/4). **4.NF.4a** builds on students' work of adding fractions and extending that work into multiplication. Example: 3/6 = 1/6 + 1/6 + 1/6 = 3 x (1/6)

4.NF.4b Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 x (2/5) as 6 x (1/5), recognizing this product as 6/5. (In general, n x (a/b) = (n x a)/b) **4.NF.4b** This standard extended the idea of multiplication as repeated addition. For example, 3 x (2/5) = 2/5 + 2/5 + 2/5 = 6/5 = 6 x (1/5). Students are expected to use and create visual fraction models to multiply a whole number by a fraction

4.NF.4c Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? **4.NF.4c** When introducing this standard make sure students use visual fraction models to solve word problems related to multiplying a whole number by a fraction.

4.NF.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 100.4 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/10 **4.NF.5** This standard continues the work of equivalent fractions by having students change fractions with a 10 in the denominator into equivalent fractions that have a 100 in the denominator. In order to prepare for work with decimals (4.NF.6 and 4.NF.7), experiences that allow students to shade decimal grids (10x10 grids) can support this work. Student experiences should focus on working with grids rather than algorithms. Students can also use base ten blocks and other place value models to explore the relationship between fractions with denominators of 10 and denominators of 100. This work in fourth grade lays the foundation for performing operations with decimal numbers in fifth grade.

4.NF.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram. **4.NF.6** Decimals are

introduced for the first time. Students should have ample opportunities to explore and reason about the idea that a number can be represented as both a fraction and a decimal.

4.NF.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 **4.NF.7** Students should reason that comparisons are only valid when they refer to the same whole. Visual models include area models, decimal grids, decimal circles, number lines, and meter sticks.

Vocabulary: compare, decimals, hundredths, tenths, symbols

4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection. **4.MD.4** This standard provides a context for students to work with fractions by measuring objects to an eighth of an inch. Students are making a line plot of this data and then adding and subtracting fractions based on data in the line plot. Example: Students measured objects in their desk to the nearest 1/2, 1/4, or 1/8 inch. They displayed their data collected on a line plot. How many objects measured 1/4 inch? 1/2 inch? If you put all the objects together end to end what would be the total length of all the objects?

Vocabulary: line plot

Resources:

Smarter Balance Test, Smarter Balance Performance Task, Acuity Practice Test, Buckle Down CCS, Options Problem Solving Books, envisions Math, Investigations, Reading Street, Read 360, or other resources as needed.