

Sirius Online

GRADE 3 MATH ELPS TEACHER RESOURCE

and Lesson Planning Guide





To The Teacher

Sirius has developed comprehensive resources to support students in their journey to proficiency in the Grade 3 Math TEKS, including:

- This Math ELPS Teacher Resource and Lesson Planning Guide that provides teachers with activities for differentiating lesson instruction for all four proficiency levels, scaffolding content, and supporting all language learners. The guide is structured consistently, making it quick and easy to use. The guide will provide 100% coverage of the ELPS by hitting every ELPS at least once in each course, either in LEARN instructional assignments or in PROBLEM SOLVING assignments.
- **Spanish translations and adaptations** that match one-to-one with the English content wherever possible, supporting English math TEKS and using the same content presented in both languages.
- **Content and language supports** that provide scaffolded definitions and images for language used in the selections and items in all assessments. Teachers can turn this on or off for any student, and they are especially helpful for Emergent Bilingual students.
- **Spelling assistance** that flags misspelled words in student writing and provides replacement options.
- **Text-to-speech** that allows students to have the computer read aloud the words on the screen while highlighting them. Teachers can turn this on or off for any student.
- **Translate** capability that gives students text translations in over 100 languages. Students can also have these translations spoken aloud using text-to-speech.

When used together, these resources provide robust scaffolding and support for all students, especially Emergent Bilingual students, from beginning to advanced high levels.



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Using the ELPS Teacher Guide

To enhance learning and practice for Emergent Bilingual students across all proficiency levels, Sirius has developed enriched instructional content designed to meet the English Language Proficiency Standards (ELPS).

ELPS support includes differentiated instruction and research-based activities to cater to the diverse needs of Emergent Bilingual students of all levels, ranging from beginning to advanced high levels. These resources support students who are learning the Grade 3 Mathematics TEKS and preparing for the STAAR test.

Sirius has crafted activities to nurture both receptive skills—such as listening and reading—and productive skills—such as speaking and writing. The activities embrace a variety of learning styles, engaging students through visual, auditory, kinesthetic, and tactile modalities.

Key Features

The majority of the ELPS are covered in the suggestions and activities provided for each LEARN instructional lesson in the Readiness Instruction and Practice sections. Please consult the chart provided at the end of this document for correlations to LEARN instructional lessons.

For LEARN instructional lessons, the ELPS Teacher Guide corresponds with all the components of the lessons including the Introduction, each lesson's **skills** and **concepts, Examples,** and **Your Turn.**



Skills and Concepts



Examples and Your Turn)



Writing in Mathematics with Problem-Solving Assignments

In order to provide opportunities for students to demonstrate English writing skills in a mathematics context, the Problem-Solving assignments in the Readiness Instruction and Practice sections can be used to cover the following ELPS:

5D: edit writing for standard grammar and usage, including subject-verb agreement, pronoun agreement, and appropriate verb tenses commensurate with grade-level expectations as more English is acquired
5E: employ increasingly complex grammatical structures in content area writing commensurate with grade-level expectations, such as:

- (I) using correct verbs, tenses, and pronouns/antecedents;
- (II) using possessive case (apostrophe s) correctly; and
- (III) using negatives and contractions correctly

Each Problem-Solving assignment includes questions that ask students how confident they are in an initial answer to a problem. Students can choose A) I have no idea. B) I'm not sure. or C) I know this one!

After selecting a response, have students write three or four complete sentences on their own paper explaining why they made the choice. Prompt them to think about what they find particularly challenging or easy about the problem, what they recognize about the problem from ones they've previously solved, and anything they aren't sure about. You may want to model a complete sentence as an example (one that includes both a subject and appropriately tensed verb). As students write, move around the room and check their writing. Offer suggestions for correcting spelling, grammar, and the appropriate use of contractions and possessives, if applicable.

Each Problem-Solving assignment also has students comparing the thinking of two students. One student's thinking will lead to the correct answer and the other will not. Students are prompted to explain why one student's thinking about how to solve the problem is not correct. Sampler Sirius Online Grade 3 Mathema The response that the student types will be saved for you to check later. Again, encourage students to write in complete sentences with correct spelling and grammar (especially verb and subject agreement). Encourage students to use contractions and possessives. For example, "John's answer can't possibly be correct because he forgot to . . . "

And finally, each Problem-Solving assignment includes a REFLECTION section. The student enters a text response that is saved for your further review.

As a proble	m solver, I		
• Next time I	solve a problem, I .		
Enter your tex	t here		

Ask students to write complete sentences to all three prompts. Again, encourage students to use proper spelling and grammar. Walk around the room as they enter their answers and give gentle guidance about the use of possessives, negatives, and contractions. Ask students to pause before clicking "Save Answer" until you've had a chance to look at each student's work at least once.

Generally speaking, it's a great idea for English-language learners to write as often as possible about mathematics. Writing about mathematics can help solidify students' mathematical thinking by compelling them to organize their thoughts about how they are thinking.

Tips for Classroom Implementation

The following ideas and strategies can help teachers support their students' progress with English-language proficiency and STAAR performance.

Supporting Fluency Development

Learning and practicing a new language in front of peers can feel scary or overwhelming, especially for Emergent Bilingual students. As such, it's important to find ways to lessen anxiety, promote participation, and effectively clarify misunderstandings. Emergent Bilingual students require planning time for responses, and they benefit from structured support, such as using sentence frames to form responses.

Before calling on a student, present a question and provide a brief interval of "thinking time," or allow students to discuss in pairs how to respond. Corrective feedback should be explicit and provide practice opportunities. In reading activities, ensure language is segmented into manageable parts with regular comprehension checks.

Supporting Vocabulary Acquisition

Cognitive research shows that it's important to establish a connection between sound and meaning when learning words for the first time. Have students practice pronunciation, stress, and intonation when new words are introduced and modeled. Provide clear definitions and relatable examples for new vocabulary to avoid the need for students to independently find definitions. Teach the target meaning of an English word by providing a direct translation from the student's home language. Help students connect sound to meaning by having them practice new vocabulary using personal or real-world examples.

Supporting Pair and Group Work

Design group activities to promote active listening and engagement, not just repetition. Grouping students with similar proficiency levels will optimize participation in some activities, while grouping students with different proficiency levels will create opportunities for peer learning in others. Be mindful of cultural differences that might affect group interactions when planning such activities.

Supporting Understanding of Math Word Problems

Math word problems bring their own set of challenges for Emergent Bilingual students. Be sure to review word problems when preparing for instruction to understand the structure of the problem. Before having students read a problem, remind them to look for what the problem is asking for them to solve. After students read a math word problem, have them summarize what is to be solved and the important information that will help them find the solution.

Supporting Writing

Emergent Bilingual students may seem to lack focus and coherence in their writing, repeating ideas due to a lack of vocabulary and structures. This does not reflect poor student thinking, but rather their inexperience or lack of confidence in expressing ideas in a new language. Allow time for verbal planning and post-writing verbal checks to enhance writing clarity and organization. Offer sentence frames and paragraph models to support structured writing.

English Language Proficiency Standards Correlations

	Learning Strategies	Lesson Correlation
1A	Use prior knowledge and experiences to understand meanings in English.	Learn 10
1B	Monitor oral and written language production and employ self-corrective techniques or other resources.	Learn 3
1C	Use strategic learning techniques such as concept mapping, drawing, memorizing, comparing, contrasting, and reviewing to acquire basic and grade-level vocabulary.	Learn 1
1D	Speak using learning strategies such as requesting assistance, employing non-verbal cues, and using synonyms and circumlocution (conveying ideas by defining or describing when exact English words are not known).	Learn 3
1E	Internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment.	Learn 1
1F	Use accessible language and learn new and essential language in the process.	Learn 1
1G	Demonstrate an increasing ability to distinguish between formal and informal English and an increasing knowledge of when to use each one commensurate with grade-level learning expectations.	Learn 6
1H	Develop and expand repertoire of learning strategies such as reasoning inductively or deductively, looking for patterns in language, and analyzing sayings and expressions commensurate with grade-level learning expectations.	Learn 2

	Listening	Lesson Correlation
2A	Distinguish sounds and intonation patterns of English with increasing ease.	Learn 10
2B	Recognize elements of the English sound system in newly acquired vocabulary such as long and short vowels, silent letters, and consonant clusters.	Learn 10
2C	Learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions.	Learn 1
2D	Monitor understanding of spoken language during classroom instruction and interactions and seek clarification as needed.	Learn 3
2E	Use visual, contextual, and linguistic support to enhance and confirm understanding of increasingly complex and elaborate spoken language.	Learn 1
2F	Listen to and derive meaning from a variety of media such as audio tape, video, DVD, and CDROM to build and reinforce concept and language attainment.	Learn 7 Learn 11
2G	Understand the general meaning, main points, and important details of spoken language ranging from situations in which topics, language, and contexts are familiar to unfamiliar.	Learn 5
2H	Understand implicit ideas and information in increasingly complex spoken language commensurate with grade-level learning expectations.	Learn 6
21	Demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs.	Learn 2

	Speaking	Lesson Correlation		
3A	Practice producing sounds of newly acquired vocabulary such as long and short vowels, silent letters, and consonant clusters to pronounce English words in a manner that is increasingly comprehensible.	Learn 7	4 A	Learn Englisl a com relatic
3B	Expand and internalize initial English vocabulary by learning and using high-frequency English words necessary for identifying and describing people, places,	Learn 5	4B	4B Recog right a
	and objects, by retelling simple stories and basic information represented or supported by pictures, and by learning and using routine language needed for classroom communication.		4C	Develo enviro and la classro
3C	Speak using a variety of grammatical structures, sentence lengths, sentence types, and connecting words with increasing accuracy and ease as more English is acquired.	Learn 4	4D	Use pr illustra
3D	Speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency.	Learn 1	4E	Read l
3E	Share information in cooperative learning interactions.	Learn 3		morel
3F	Ask and give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments.	Learn 6	4F	Use via and te text, e vocab knowl challe
3G	Express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics.	Learn 7	4G	Demo Englis summ taking
ЗH	Narrate, describe, and explain with increasing specificity and detail as more English is acquired.	Learn 7	4H	Read s
31	Adapt spoken language appropriately for formal and informal purposes.	Learn 5		longer
3J	Respond orally to information presented in a wide variety of print, electronic, audio, and visual media to build and reinforce concept and language attainment.	Learn 13		
		1		

Reading	Lesson Correlation
Learn relationships between sounds and letters of the	Learn 2
a combination of skills such as recognizing sound-letter	Learn 3
relationships and identifying cognates, affixes, roots, and base words.	Learn 6
Recognize directionality of English reading such as left to right and top to bottom.	Learn 11
Develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials.	Learn 5
Use prereading supports such as graphic organizers, illustrations, and pretaught topic-related vocabulary and other prereading activities to enhance comprehension of written text.	Learn 1
Read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned.	Learn 4
Use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language.	Learn 7
Demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs.	Learn 8
Read silently with increasing ease and comprehension for longer periods.	Learn 12
	ReadingLearn relationships between sounds and letters of the English language and decode (sound out) words using a combination of skills such as recognizing sound-letter relationships and identifying cognates, affixes, roots, and base words.Recognize directionality of English reading such as left to right and top to bottom.Develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials.Use prereading supports such as graphic organizers, illustrations, and pretaught topic-related vocabulary and other prereading activities to enhance comprehension of written text.Read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned.Use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs.Read silently with increasing ease and comprehension for longer periods.

	Reading (continued)	Lesson Correlation
41	Demonstrate English comprehension and expand reading skills by employing basic reading skills such as demonstrating understanding of supporting ideas and details in text and graphic sources, summarizing text, and distinguishing main ideas from details commensurate with content area needs.	Learn 9
4J	Demonstrate English comprehension and expand reading skills by employing inferential skills such as predicting, making connections between ideas, drawing inferences and conclusions from text and graphic sources, and finding supporting text evidence commensurate with content area needs.	Learn 8
4K	Demonstrate English comprehension and expand reading skills by employing analytical skills such as evaluating written information and performing critical analyses commensurate with content area and grade-level needs.	Learn 6

	Writing	Lesson
5A	Learn relationships between sounds and letters of the English language to represent sounds when writing in English.	Learn 10
5B	Write using newly acquired basic vocabulary and content-based grade-level vocabulary.	Learn 1
5C	Spell familiar English words with increasing accuracy, and employ English spelling patterns and rules with increasing accuracy as more English is acquired.	Learn 11
5D	Edit writing for standard grammar and usage, including subject-verb agreement, pronoun agreement, and appropriate verb tenses commensurate with grade-level expectations as more English is acquired.	Problem- Solving Assignments (see page vi)
5E	Employ increasingly complex grammatical structures in content area writing commensurate with grade-level expectations, such as: (i) using correct verbs, tenses, and pronouns/antecedents; (ii) using possessive case (apostrophe s) correctly; and (iii) using negatives and contractions correctly.	Problem- Solving Assignments (see page vi)
5F	Write using a variety of grade-appropriate sentence lengths, patterns, and connecting words to combine phrases, clauses, and sentences in increasingly accurate ways as more English is acquired.	Learn 6
5G	Narrate, describe, and explain with increasing specificity and detail to fulfill content area writing needs as more English is acquired.	Learn 7

ELPS Lesson Plans

LEARN 1 – Using Place Value (3.2A)

INTRODUCTION

5–10 min.

Whole Group (all levels)

ELPS 1E ELPS 2C ELPS 3D

KEY TERMS: place value, expanded notation, expanded form, standard form

Pronounce each Key Term and have students repeat after you. Define the terms and show an example. Consider adding these math terms to a vocabulary wall or vocabulary journal for students to reference throughout the school year.

BREAKING NUMBERS APART	10–15 min.	
Review or define key terms.	ELPS 1F	
skyscraper: a tall building usually found in a big city		
height: how tall something is vertically		
sum: the answer after adding two or more numbers toge	ether	
Adva	nced /	

Beginner	Advanced / Advanced High
Use manipulatives or drawings to demonstrate a broken apart 3- or 4-digit number. Say the broken apart number and have students repeat.	Have students break apart 3- and 4-digit numbers by writing the numbers with the
Intermediate	terms "thousands," "hundreds " "tens "
Show a 3- or 4-digit number. Have students explain the place value of the number using a sentence frame. (This number is the sum of thousands, hundreds, tens, and ones.)	and "ones." Provide students with the spellings of these word if needed.

USING MODELS TO WRITE NUMBERS

10-15 min.

ELPS 2E

ELPS 3D

ELPS 5B

Continue using the academic language of place value (thousands, hundreds, tens, and ones) and encourage students to do the same. Review standard form and show an example before beginning.

Example 1—Writing a Number from a Model

Use base ten blocks or base ten blocks visuals to represent the number 2,041. Explain to students the significance of the 0 in the hundreds place. Show other examples of the number 0 holding place such as in the numbers 3,408 and 1,950.

Model pronunciation of these numbers. Examples:

- 2,041 is pronounced two thousand, forty-one. (NOT "two thousand, zero hundred, forty-one.")
- 4 tens and 1 one is pronounced forty-one. (NOT "four tens, one one.")

Your Turn

Beginner	Advanced / Advanced High	
Have students draw or use base ten blocks to represent various 4-digit numbers. Say each number and have students repeat.	Have students work in pairs to take turns writing a 4-digit number	
Intermediate	in standard form, drawing or using base	
Have students draw or use base ten blocks to represent various 4-digit numbers. Have students say the numbers in standard form. (This number is thousand, hundred,)	ten blocks to represent the number, and saying the number.	

EXPANDED NOTATION AND EXPANDED FORM

10-15 min.

ELPS 1C

ELPS 2D

ELPS 3D

ELPS 4D

Show a Venn diagram to students and discuss the similarities and differences between the two place value representations of expanded notation and expanded form. Model showing a 4-digit number written in each format.

Review multiplication and order of operations. Add these terms to the vocabulary wall or journal if you are using either.

Note that students will be introduced to the ten thousands place in this portion of the lesson.

Advanced / Advanced High

Have students hypothesize what the next place value would be called by recognizing the pattern (hundred thousands). Write a 6 digit number and have students label each place value verbally or in writing.

Example 2–Using Expanded Notation

Model changing the form of the number in a step-by-step format. Write the steps with examples on the board or an anchor chart for students to view when solving problems on their own. Model and practice this concept many times.

Your Turn

Step 1 Read the number written in expanded notation for students. Have students repeat. Consider labeling the place values in the number (ten thousands, thousands, hundreds, tens, ones). Guide students to write the number in expanded form. Read the number and have students repeat.

Advanced / Advanced High

Have students read the number written in expanded notation and write the number in expanded form.

Step 2 Have students help you add the numbers in expanded form.

Step 3 Read the number in standard form for students and have them repeat.

cont.

Beginner	Advanced / Advanced High	
Model how to use the academic language to say the number in each form. Have students say the number in each form aloud using the academic language.	In pairs or individually, have students complete the steps and write and say the number in each	
Intermediate	form.	
Guide students through the steps. Have students say the number in each form aloud using the academic language. Have students write the number in each form.		

BREAKING APART DIGITS GREATER THAN FIVE

Use base ten blocks or base ten blocks visuals to teach the concept of breaking apart digits greater than five. Students need to see the numbers as groups of 5, 50, 500, and 5,000.

ELPS 1C ELPS 3D

10-15 min.

Consider referencing a number line and identifying the numbers that are greater than each of these groups of numbers (6–9, 60–90, 600–900, 6,000–9,000).

Define **greater than** and **less than.** Add these terms to the vocabulary wall or journal if you are using either

Continue the practice of writing 4-digit numbers and having students identify the digits that are greater than 5 to break apart.

Use academic language and have students repeat. For Example:

In the number 1,942, 900 is greater than 500. We can use place value to break apart 900 into 500 + 400.

Sirius Companion Workbooks

Blended Learning That's Easy to Use

Sirius Online courses and our complementary print resources have similar organization and content so you can easily move between each medium, to adapt to best **serve the needs of your unique students.**

Many **struggling students often take greater ownership** of their learning when they can write in their OWN workbooks. Additionally, students are better able to transfer their thinking processes to an online format when they see and experience the same content in both the print and online formats. Sirius Online's **comprehensive math courses integrate all** the content from our print-based workbooks, and more: with digital Skills Review, Mixed Review STAAR Prep, and a full-length Practice Test. And with online resources, students get immediate feedback while teachers get auto scoring and powerful reporting.

Sampler

You can register here to **examine our printed math workbooks** as eBooks. eBooks are not interactive, require internet access, and cannot be downloaded or printed.



Sirius Online is Research-Based

Sirius uses established research and design principles to ensure its resources are effective and easy to use to **support teachers** in **helping students succeed** in learning the essential TEKS and succeeding on STAAR tests.

Sirius has partnered with McREL International

to research the following expected outcomes.



Increased student:

- STAAR test performance
- Engagement and motivation with STAAR content
- Confidence in answering complex STAAR questions
- Self-efficacy about improving STAAR test performance

Sirius Education Solutions is conducting **ongoing user-experience** and **efficacy research** to continuously improve the student and educator experience.

SIRIUS ONLINE GRADE 5 MATHEMATICS SIRIUS ONLINE GRADE 4 MATHEMATICS SIRIUS ONLINE GRADE 3 MATHEMATICS FKS-based STAAR 2.0

Contact us to learn more and partner with us!