

HPISD First Grade Math

UNIT NAME		ESTIMATED DURATION	9 WEEKS			
UNIT 8: TENS AND ONES		2 WEEKS	1	2	3	4
UNIT OVERVIEW						
This unit develops an understanding on how to use place value and open number lines to compose, decompose, find the sum, and compare and order whole numbers up to 120.						
ENDURING UNDERSTANDINGS						
The student will understand that:	<ul style="list-style-type: none"> • Sets of 10 can be perceived as single entities. In a standard numeral, the tens are written to the left of the ones. Numbers can be used to tell how many. • When objects are grouped in sets of 10 and leftovers (ones), counting the groups of ten and adding ones tells how many there are in all. Numbers can be used to tell how many. • Numbers greater than 10 can be named in more than one way and have the same value. • When adding ones to a multiple of 10, only the ones digit changes. • Numbers greater than 10 can be represented as the sum of the tens and the ones. • Numbers greater than 10 can be named in more than one way and have the same value. 					
CONCEPTS						
Number Uses, Classification, and Representation		Numbers can be used for different purposes, and numbers can be classified and represented in different ways.				
The Base-Ten Numeration System		The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.				
Equivalence		Any number, measure, numerical expression, algebraic expression, or equation can be represented in an infinite number of ways that have the same value.				
Basic Facts and Algorithms		There is more than one algorithm for each of the operations with rational numbers. Some strategies for basic facts and most algorithms for operations with rational numbers, both mental math and paper and pencil, use equivalence to transform calculations into simpler ones.				
Practices, Processes, and Proficiencies		Mathematics content and processes can be applied to solve problems.				

GUIDING/ESSENTIAL QUESTIONS

- How does the position of a digit in a number affect its value?
- How are place value patterns repeated in 2 or 3 digit numbers?
- How do you represent a number that is more than 10?
- How can a number be represented in standard form?
- How can a number be represented in expanded form?

LEARNING TARGETS & PREREQUISITES**Prerequisite:**

- Calculate groups of 10 and leftovers.
- Recall place value vocabulary

Learning Target:

- The student will decompose two-digit numbers into tens and ones.

Second Grade Connection:

- 2.2 (B) Use standard, word, and expanded forms to represent numbers up to 1,200.

Prerequisite:

- Apply addition and skip counting

Learning Target:

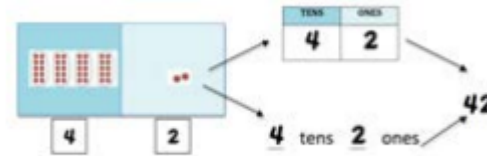
- The student will illustrate with expanded form to represent two-digit numbers in more than one way.

Second Grade Connection:

- 2.2 (A) Use concrete and pictorial models to compose and decompose numbers up to 1,200 in more than one way as a sum of so many thousands, hundreds, tens, and ones.

Progressions

- Use concrete and pictorial models to represent two-digit numbers.



- Numbers greater than 10 can be represented as the sum of the tens and the ones.

- using a place value t-chart
- Use a hundred chart to add tens and ones for numbers to 99.
- Use concrete and pictorial models to add tens and ones for numbers to 99.
- Numbers greater than 10 can be named in more than one way and have the same value.

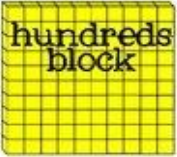


FORMATIVE ASSESSMENT	Summative Assessments
TEKS: Readiness Standards	TEKS: Supporting Standards
<p>*1.2(C) Use objects, pictures, and expanded and standard forms to represent numbers up to 120.</p>	<p>*1.2(B) Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.</p> <p>*1.3(A) Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99.</p>
TEKS Process Standards	
<p>1.1 (A) Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>1.1 (B) Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>1.1 (C) Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>1.1 (D) Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>1.1 (E) Create and use representations to organize, record, and communicate mathematical ideas.</p> <p>1.1 (F) Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>1.1 (G) Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>	

Processes and Skills: What students should be able to DO	Facts: What students should KNOW
<ul style="list-style-type: none"> • The students should be able to count and add using tens and ones by counting groups of 10 and leftovers. (ex. – 3 groups of 10 and 4 left over is 34) • The students should be able to count and add using tens and one on a hundred chart. (ex. – use a hundred chart to add 6+30. Start on 6 and count by tens by moving down the column: 16, 26, 36, 6+30=36) • The students should be able to count and add using tens and ones in expanded form. (ex. – $7+20 = 27$) • Count and add using tens and ones by making an organized list. ex. – 5 tens and 2 ones 4 tens and 12 ones 3 tens and 22 ones 2 tens and 32 ones 1 ten and 42 ones 0 tens and 52 ones 	<ul style="list-style-type: none"> • Numbers are used to tell how many. • Sets of 10 can be perceived as single entities. • In a standard numeral, the tens are written to the left of the ones. • When objects are grouped in sets of 10 and leftovers (ones), counting the groups of ten and adding ones tells how many there are in all. • Numbers greater than 10 can be named in more than one way and have the same value. • When adding ones to a multiple of 10, only the ones digit changes. • Numbers greater than 10 can be represented as the sum of the tens and the ones. • Numbers greater than 10 can be named in more than one way and have the same value.
Topics	
Envisions Topic 8	
Language of Instruction	
break apart a ten expanded form ones standard form tens	

State Assessment Connections	National Assessment Connections
------------------------------	---------------------------------

--	--

Resources

	hundreds	tens	ones
<div style="border: 2px dashed gray; padding: 10px;"> <p style="text-align: center; color: purple; font-size: 1.2em;">Expanded Form</p> <p style="text-align: center;">a way to write a number that shows the value for each place</p> <p style="text-align: center; font-size: 1.5em;">100 + 20 + 3</p> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <p>hundreds</p> </div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <p>tens</p> </div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <p>ones</p> </div> </div> </div>	<div style="text-align: center;">  <p style="margin: 0;">hundreds block</p> <p style="font-size: 0.8em; margin-top: 5px;">one hundreds block = 10 tens, or 100 ones, or 100</p> </div>	<div style="text-align: center;">  <p style="margin: 0;">rod</p> <p style="font-size: 0.8em; margin-top: 5px;">one rod = 10 ones, or 10</p> </div>	<div style="text-align: center;">  <p style="margin: 0;">cube</p> <p style="font-size: 0.8em; margin-top: 15px;">one cube = 1</p> </div>