



Revision Date	April 20, 2020
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Department of Curriculum & Instruction

First Grade Math

Unit	1-8 Numbers to 120
Time Frame	1/25-2/19
Big Ideas	<ol style="list-style-type: none"> Counting forward to and backward from 120 follows the same place value counting rules as counting forward to and backward from two-digit numbers. Numbers greater than 100 can be represented as the sum of hundreds, tens and ones. Numbers greater than 100 can be named in more than one way and have the same value.
Essential Questions	<ol style="list-style-type: none"> How can we count by 10 when starting at any two-digit number? How can skip counting be used to count the total number of objects in a set? How do we represent numbers greater than 100?

TEKS / Student Expectations	Skills	Concepts
<p>(Spiraled TEKS)</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>1.2(C) use objects, pictures, and expanded and standard forms to represent numbers up to 120</p> <p>1.5(A) recite numbers forward and backward from any given number between 1 and 120</p> <p>1.5(B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set</p>	<p>Use</p> <p>Use</p> <p>Recite</p> <p>Skip count</p>	<p>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>Objects, pictures, and expanded and standard forms to represent numbers up to 120</p> <p>Numbers forward and backward from any given number between 1 and 120</p> <p>Twos, fives, and tens to determine the total number of objects up to 120 in a set</p>
<p>(Readiness TEKS)</p> <p>1.2(G) represent the comparison of two numbers to 100 using the symbols $>$, $<$, or $=$</p>	<p>represent</p>	<p>comparison of two numbers to 100 using the symbols $>$, $<$, or $=$</p>



TEKS / Student Expectations	Skills	Concepts
<p>(Supporting TEKS) 1.2(D) generate a number that is greater than or less than a given whole number up to 120</p> <p>1.2(E) use place value to compare whole numbers up to 120 using comparative language</p> <p>1.2(F) order whole numbers up to 120 using place value and open number lines</p> <p>1.5(C) use relationships to determine the number that is 10 more and 10 less than a given number up to 120</p>	<p>Generate</p> <p>Use</p> <p>Order</p> <p>use</p>	<p>Number that is greater than or less than a given whole number up to 120 Place value to compare whole numbers up to 120 using comparative language Whole numbers up to 120</p> <p>using place value and open number lines</p> <p>Relationships to determine the number that is 10 more and 10 less than a given number up to 120</p>
<p>(Process Skill) TEKS</p> <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>Apply</p> <p>Use</p> <p>Select</p> <p>Communicate</p> <p>Create</p> <p>Analyze</p> <p>Display Explain Justify</p>	<p>Mathematics to problems arising in everyday life, society, and the workplace</p> <p>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>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>Mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;</p> <p>Representations to organize, record, and communicate mathematical ideas</p> <p>Mathematical relationships to connect and communicate mathematical ideas</p> <p>Mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>



TEKS / Student Expectations	Skills	Concepts
1.1(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.		

Tier I Instructional Strategies – Classroom Instruction for All Students

- Pearson Envision 9 and 10

1.5(C) use relationships to determine the number that is 10 more and 10 less than a given number up to 120

- In order for students to be able to conceptualize 10 More 10 Less they need a solid foundation with Place Value and Hundreds Chart Patterns.

Link Place Value concepts to 10 More/Less by using concrete manipulatives:

Base 10 blocks
Ten frames
Cubes

1 more or 1 less

- As with 10 more/less, introduce this concept with manipulatives. (CRA Instruction- Concrete, Representational, Abstract)

1.2(E) use place value to compare whole numbers up to 120 using comparative language

- Strategies-
 - In their journals have students compare two numbers by building the numbers with base-10 Blocks, creating pictorial model, and then write a sentence.
 - With a partner or in a station, students draw two number cards, represent each number with manipulatives (Base 10, 10-Frame, cubes, etc.), then verbalize the comparison of 2 numbers,

10 less (-10)		10 more (+10)
	14	
	31	
	29	
	53	
	36	
	40	

Build 13 on your ten frame.
Add 1.
One more than 13 is _____.





- 23 is greater than 45.
- Compare the amount modeled in the highest place value first (tens place, then ones)
- For example, 35 is greater than 13 because 35 had 3 tens, 13 only has 1 ten.

1.2G Represent the comparison of two numbers to 100 using the symbols $>$, $<$, or $=$

- Use comparative symbols and language

1.2F Order whole numbers up to 120 using place value and open number lines

Use quantifying descriptors to have students put numbers in order. (greatest/least, heaviest/lightest, longest/shortest, fastest/slowest, hottest/coldest, farthest/closest, ascending/descending, tallest/shortest, warmest/coldest)

○ John, the meteorologist, compared temperatures across the country one winter day. The temperature in Texas was 49 degrees. The temperature in New York was 31 degrees. The temperature in Hawaii was 69 degrees. List the temperatures in order from coldest to warmest.

Open Number Lines

- Begins with no numbers or ticks
- Numbers are only added as needed
- Introduce Open Number Lines with a class-sized model on the floor. Assign students number cards to put themselves in order.
- Repeat this activity with several slightly smaller number lines. Students walk around the room to music. When the music stops, they find the nearest open line and put themselves in order.
- Can easily create open lines in their journals by tracing the horizontal line

[Place value unit](#)

Stations/Centers

Stations provide students the opportunity to practice skills that have introduced or taught in whole group or Guided Math lessons. students in stations allows them the opportunity to talk about their mathematical thinking, apply academic vocabulary, and hear how their about math. When students visit math centers, the teacher has the opportunity to meet with Guided Math groups for small group
Once stations are created and introduced, they can be spiraled back and utilized in any unit.

- [Roll and solve subtraction](#)
- [I Have Who Has Spinner Game](#)
- [Roll and Compare](#)

- (Resources) TEA Grade 1 p. 86-89



- Students draw 5-8 number cards from a bag, build/represent the numbers with place value, order from least to greatest

Recursive/Practice/Application-

- [Ten More 10 Less](#)

- Envision Independent Practice Lesson Topic 10-8 p.549

- [Place Value Matching cards](#)

Comparing

- Envision Independent Practice Lesson Topic 10-6 p.537

- [Comparing matching cards](#)

Hands On

- Ten More 10 Less

- Students roll dice or draw cards to generate a 2-digit number. Students will then use Base Ten Blocks to generate a number that is 10 more 10 less

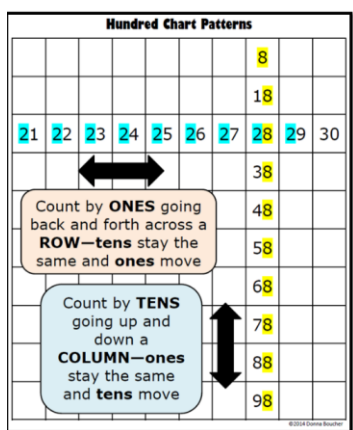
- Compare Numbers

- Students roll dice or draw cards to generate two sets of 2 digit numbers. Students will first represent each number with Base Ten Blocks, the use two popsicle sticks to create the

appropriate symbol (<, >, =) • Order Numbers

- In baggies create sets of about 10 numbers ranging from 0-120 and a piece of string. Students will order numbers and use the string to create an Open Number Line. If students are struggling to order/compare, provide them with Base Ten Blocks, Hundreds Chart, Number Line, etc

Strategies for Struggling Students (S3)



- If students are struggling with the TEKS in this unit, Spiral back to Number Patterns in Unit 7.

- [Humpty Dumpty Hundreds Chart Puzzle](#)
- [Hundreds Chart with Missing Number](#)

- Review Place Value

- From The Math Coach's Corner, "Truly understanding place value requires students to be able to unitize. What this means is that they must be able to understand that a group of ten

ones can be counted as a single unit, called a ten. That's a huge mathematical step, because the idea is so abstract. As with any abstract concept, students need lots of varied hands- on experiences building tens and ones and talking about the meaning to develop a true understanding. That means ten-frames and counters, linking cubes, beans on a stick, linking chains, etc.—as many different representations as you can think of.

[Grab and compare station](#)



Vocabulary

Forward/Backward
Recite
Skip Counting
Increment
Multiple of 10
Ones Place
Tens Place
Place Value
Same As

Order
Compose
Decompose
Greater Than (>)
Less Than (<)
Equal To (=)
More Than
Fewer Than

Counting natural numbers
compare

Sample STAAR or STAAR-Like Assessment Items

**The following sample questions are one of many ways to assess the TEKS student expectation.*

[Unit Assessment](#) (click link to download)

Resources

**The suggested resources are one of many ways to address the TEKS student expectation.*

TEA Stations and Small Group Activities

1. [Grade 1](#)
2. [Kindergarten](#)

[TEA vertical alignment chart](#)