

## HPISD First Grade Math

<b>Unit Name</b>		<b>Estimated Duration</b>		<b>9 Weeks</b>			
<b>UNIT 7: COUNTING AND NUMBER PATTERNS</b>		<b>2 WEEKS</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Unit Overview</b>							
This unit develops ideas about counting and the relationships between numbers.							
<b>Enduring Understandings</b>							
<b>The student will understand that:</b>	<ul style="list-style-type: none"> <li>• Counting and place-value patterns can be seen on a hundred chart.</li> <li>• Skip counting can be used to find the total number of objects in a collection on equal groups.</li> <li>• Some problems can be solved by identifying elements that repeat in a predictable way.</li> </ul>						
<b>Concepts</b>							
Patterns, Relations, and Functions	Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. For some relationships, mathematical expressions and equations can be used to describe how members of one set are related to members of a second set.						
Properties	For a given set of numbers there are relationships that are always true, called properties, and these are the rules that govern arithmetic and algebra.						
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.						
<b>Guiding/Essential Questions</b>							
<ul style="list-style-type: none"> <li>• What are some different ways you can count?</li> <li>• In what ways can different numbers be grouped?</li> <li>• What are some numerical patterns you see on a hundred chart?</li> <li>• How do number patterns help you with estimating?</li> <li>• How does identifying number patterns help you solve a problem?</li> </ul>							

Learning Targets & Prerequisites	Progressions
<p><b>Prerequisites:</b></p> <ul style="list-style-type: none"> <li>Recall the order of numbers to 120</li> </ul> <p><b>Learning Target:</b></p> <ul style="list-style-type: none"> <li>The student will skip count by 2's, 5's, or 10's to find the total number of objects in a set up to 120.</li> </ul> <p><b>Second Grade Connection:</b></p> <ul style="list-style-type: none"> <li>2.7 (A) Determine whether a number up to 40 is even or odd using pairings of objects to represent the number.</li> </ul>	<ul style="list-style-type: none"> <li>Skip counting should help find the total number of objects in a set.</li> <li>The students should know that numbers can be recited forward or backward from any given number.</li> <li>The students should be able to identify and extend skip counting patterns starting from any given number between 1 and 120.</li> </ul>
<p><b>Prerequisites:</b></p> <ul style="list-style-type: none"> <li>Understand the layout of the hundred chart</li> </ul> <p><b>Learning Target:</b></p> <ul style="list-style-type: none"> <li>The student will use the hundred chart to skip count by 2's, 5's, and 10's.</li> </ul> <p><b>Second Grade Connection:</b></p> <ul style="list-style-type: none"> <li>2.4 (C) Solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms.</li> </ul>	<ul style="list-style-type: none"> <li>Use a hundred chart to count forward from any number.</li> <li>Use a hundred chart to count backward from any numbers.</li> </ul>
Formative Assessments	Summative Assessments
TEKS: Readiness Standards	TEKS: Supporting Standards
	<p>1.5(A) Recite numbers forward and backward from any given number between 1 and 120;</p> <p><b>*1.5(B) Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.</b></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.**

**TEKS Process Standards**

- 1.1 (A) Apply mathematics to problems arising in everyday life, society, and the workplace.
- 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.
- 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.
- 1.1 (D) Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.
- 1.1 (E) Create and use representations to organize, record, and communicate mathematical ideas.
- 1.1 (F) Analyze mathematical relationships to connect and communicate mathematical ideas.
- 1.1 (G) Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

**Processes and Skills:**

**What students should be able to DO**

- The students should be able to recite numbers by counting forward and backward from any given number between 1 and 120.  
The students should be able to skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.
- The students should be able to identify and extend skip counting patterns starting from any given number between 1 and 120.
- The students should be able to identify missing numbers in a number pattern.

**Facts:**

**What students should KNOW**

- The students should know that the numbers 1 to 120 can be used to tell how many.
- The students should know that numbers can be recited forward or backward from any given number.
- Skip counting should help find the total number of objects in a set.
- A hundred chart can help with skip counting and finding number patterns.
- Making a table can help find mathematical relationships.

<ul style="list-style-type: none"> <li>• The students should be able to identify and recite numbers in a pattern by using a hundred chart.</li> <li>• The students should be able to skip counting to determine the amount of items in a set by using a table.</li> <li>• The students will be able to use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99. (e.g. – 80+9, 50+4)</li> </ul>	
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<b>Topics</b>	
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Envisions Topic 7	
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<b>Language of Instruction</b>	
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column digit hundred chart ones row skip count tens digit
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<b>State Assessment Connections</b>	<b>National Assessment Connections</b>
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<b>Resources</b>	
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