

HPISD First Grade Math

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UNIT NAME	ESTIMATED DURATION	9 WEEKS		
UNIT 13: FRACTIONS OF SHAPES	2 WEEKS	1	2	4
UNIT OVERVIEW				
This unit develops ideas about parts and wholes, equal parts, parts of a whole, and parts of a set of a shape.				
ENDURING UNDERSTANDINGS				
The student will understand that:	<ul style="list-style-type: none"> A region can be divided into equal-sized parts in different ways. Equalized parts of a region have the same area but not necessarily the same shape. Shapes can be divided into equal parts called halves and quarters, or fourths. Information in a problem can often be shown using a picture or diagram and used to understand and solve the problem. 			
CONCEPTS				
Comparison and Relationships	Numbers, expressions, measures, and objects can be compared and related to other numbers, expressions, measures, and objects in different ways.			
Geometric Figures	Two- and three-dimensional objects with or without curved surfaces can be described, classified, and analyzed by their attributes. An object's location in space can be described quantitatively.			
Practices, Processes, and Proficiencies	Mathematics content and processes can be applied to solve problems.			
Guiding/Essential Questions				
How can $\frac{1}{2}$, and $\frac{1}{4}$ be represented? How do you know if a shape is equal or unequal? How can I use fractions in real life?				
Learning Targets & Prerequisites			Progressions	
<u>Prerequisite:</u> <ul style="list-style-type: none"> Define the concept of a line of symmetry Recognize fraction vocabulary <u>Learning Target:</u> <ul style="list-style-type: none"> The student will determine whether a plane shape is divided into equal or unequal parts. 			<ul style="list-style-type: none"> Drawing a picture can help understand parts of a whole. 	

<p><u>Second Grade Connection:</u></p> <ul style="list-style-type: none"> 2.9 Applies mathematical process standards to select and use units to describe length, area, and time. 	<p>How can you and a friend share equally (partition) this piece of paper so that you both have the same amount of paper to paint a picture?</p>  <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Student 1</p> <p>I would split the paper right down the middle. That gives us 2 halves. I have half of the paper and my friend has the other half of the paper.</p>  </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Student 2</p> <p>I would split it from corner to corner (diagonally). She gets half of the paper and I get half of the paper. See, if we cut on the line, the parts are the same size.</p>  </div> </div>
<p><u>Prerequisite:</u></p> <ul style="list-style-type: none"> Understand equal parts <p><u>Learning Target:</u></p> <ul style="list-style-type: none"> The student will identify shapes that are divided or not divided into halves and fourths. <p><u>Second Grade Connection:</u></p> <ul style="list-style-type: none"> 2.9 Applies mathematical process standards to select and use units to describe length, area, and time. 	<ul style="list-style-type: none"> Use words to describe parts of shapes that have 2 or 4 equal parts. Show 2 or 4 equal parts of a shape.
<p>Formative Assessments</p>	<p>Summative Assessments</p>
<p>TEKS: Readiness Standards</p>	<p>TEKS: Supporting Standards</p> <p>*1.6G) Partition two-dimensional figures [such as circles and rectangles] into two and four fair shares or equal parts and</p>

	<p>describe the parts using words [such as "halves," "half of," "fourths," or "quarters"]</p> <p>1.6(H) Identify examples and non-examples of halves and fourths</p>
<p>TEKS Process Standards</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>1.1(G) Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>	
<p>Processes and Skills: What students should be able to DO</p>	<p>Facts: What students should KNOW</p>
<ul style="list-style-type: none"> ● Determine whether a plane shape is divided into equal or unequal parts. ● Divide plane shapes into equal parts. ● Determine if a shape is divided into fourths or halves. ● Describe equal parts of a plane shape. (ex. – 1 out of 2 parts are black) ● Describe the parts using words such as “halves”, “fourths”, or “quarters”. 	<ul style="list-style-type: none"> ● Plane shapes can be partitioned into equal or unequal parts. ● Plane shapes can be partitioned into halves and fourths. ● Drawing a picture can help understand parts of a whole. ● Drawing line through shapes can show equal parts, or fractions.

Topics	
Envisions Topic 13	
Language of Instruction	
equal parts halves fourths quarters fair shares	
State Assessment Connections	National Assessment Connections
Resources	
https://www.youtube.com/watch?v=DnFrOetuUKg	

