

*Jemez Valley Public Schools*  
**KINDERGARTEN MATHEMATICS • CONTENT MAP**

Quadrant I	Quadrant II	Quadrant III	Quadrant IV
<b>Strand 1: Number and Operations</b>			
<b>Standard: Students will understand numerical concepts and mathematical operations</b>			
<p>Represent numbers using pictures, objects, or numerals. (year long)</p> <p>Use an organized counting method to keep track of quantities while counting (one-to-one correspondence) (e.g. touch object once and only once as counting a set) (year long)</p> <p>Connect numerals to the quantities they represent using various physical models (year long)</p> <p>Computational families 0-5(year long)</p> <p>Compare and order whole numbers up to 20 (year long) Enrichment: up to 100</p> <p>Read and write whole numbers up to 20 (year long) Enrichment: up to 100</p> <p>Count with understanding and recognize "how many" in sets of objects up to 20 (year long) Enrichment: up to 100</p> <p>Order sets of objects and numbers from least to most or most to least (year long)</p> <p>Model situations that involve whole numbers using objects or pictures. (year long)</p>	<p>Estimate quantities of objects up to 20. (year long)</p>	<p>Place value: ones, tens, hundreds (year long)</p> <p>Introduce estimation (supplement)</p> <p>Use concrete objects to solve simple addition and subtraction story problems (e.g., oral not written)</p>	
Quadrant I	Quadrant II	Quadrant III	Quadrant IV
<b>Strand 2: Algebra</b>			
<b>Standard II: Students will understand algebraic concepts and applications.</b>			
<p>Identify the attributes of objects (e.g., the ability to identify attributes is a foundational skill for sorting and classifying) (year long).</p> <p>Sort, classify and order objects by size, number, and other properties (year long).</p>	<p>Recognize, reproduce, describe, extend, and create repeating patterns (e.g., color, shape, size, sound, movement, simple numbers)(year long).</p>	<p>Use concrete, pictorial, and verbal representation to develop an understanding of invented and conventional symbols</p> <p>Verbally describe changes in various contexts (e.g., plants or animals growing over time).</p>	
Quadrant I	Quadrant II	Quadrant III	Quadrant IV
<b>Strand 3: Geometry</b>			
<b>Standard: Students will understand geometric concepts and applications.</b>			
<p>. Use spatial vocabulary (e.g., left, right, above, below) to describe relative position.</p>		<p>Follow simple directions to find a specific location in space (year long)</p>	

		<p>Describe how to get from one location to another (e.g., how to get to the library)</p> <p>Describe, identify, model, and draw common geometric objects (e.g., circle, triangle, square, rectangle, cube, sphere, and cone) (year long)</p> <p>Compare familiar plane and solid objects by common attributes (e.g., shape, size, number of corners) (year long)</p> <p>Find and describe geometric shapes in nature and architecture (year long)</p> <p>Investigate the symmetry of two-dimensional shapes (e.g., by folding or cutting paper, using mirrors).</p> <p>Use manipulatives (e.g., puzzles, tangrams, blocks) to demonstrate rotation (i.e., flips), translations (i.e., slides), and reflection (i.e., turns).</p>	
<b>Quadrant I</b>	<b>Quadrant II</b>	<b>Quadrant III</b>	<b>Quadrant IV</b>
<b>Strand 4: Measurement</b>			
<b>Standard: Students will understand measurement systems and applications.</b>			
<p>Explore measuring objects using a repeating non-standard unit of measurement (e.g., paper clips, cubes, etc).</p> <p>Measure using non-standard units of measurement (e.g., use pencils to measure desk top, use different lengths of rope to measure distance in classroom).</p>	<p>Describe and compare, using appropriate concepts and vocabulary, the measurable properties of time (e.g., before, after, morning, afternoon, days of weeks).</p> <p>Use digital and analog (face) clocks to tell time to the hour. (year long)</p>		<p>Describe and compare, using appropriate concepts and vocabulary, the measurable properties of length (e.g., shorter, longer, taller) volume (e.g., full, empty) and weight (e.g., heavy, light)</p> <p>Use tools to make predictions (e.g., using a balance scale, predicting how many cups a container will hold and then filling it to check the prediction)</p>
<b>Quadrant I</b>	<b>Quadrant II</b>	<b>Quadrant III</b>	<b>Quadrant IV</b>
<b>Strand 5: Data Analysis and Probability</b>			
<b>Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.</b>			
<p>Describe simple data and pose questions about the data (year long).</p> <p>Collect data and record results using objects, pictures, and pictographs (year long)</p>	<p>Make simple predictions (year long).</p>	<p>Collect data about objects and events in the environment to answer simple questions (e.g., brainstorm questions about self and surroundings)</p> <p>Answer questions that relate to the possibility of familiar events happening or not (year long)</p>	