



and connections with TEKS

Mathematical Process Standards

Apply mathematics to problems arising in everyday life, society, and the workplace.

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.

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.

Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.

Create and use representations to organize, record, and communicate mathematical ideas.

Analyze mathematical relationships to connect and communicate mathematical ideas.

Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

All of the *Math Medley* activities were designed to promote critical thinking skills. The parent participation booklet offers some suggested higher-order thinking questions for parents to ask their children as they are involved in the activity. As parents work with their children and enter into deeper mathematical conversations, they will be addressing the *Mathematical Process Standards* and promoting greater learning and understanding.





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Knowledge and Skills	Bingo	Calculators	Coordinate Graphing	In the Bag	It's About Time	Polygons	Snails and Trails	Spinners
Grade K								
Number and Operations								
Count forward and backward to at least 20	•	•	•	•			•	•
Read, write, and represent whole numbers from 0-20	•	•	•					
Count a set of objects and demonstrate that the last number said tells the number of objects				•			•	•
Compose and decompose numbers up to 10				•				
Model the action of joining to represent addition				•				
Geometry and Measurement								
Identify two-dimensional shapes			•			•		
Identify attributes of two-dimensional shapes using informal and formal geometric language			•			•		
Create two-dimensional shapes			•			•		
Data Analysis								
Collect, sort, and organize data into 2 or 3 categories							•	•
Draw conclusions from (real-object and picture) graphs							•	•





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Grade 1								
Number and Operations								
Use objects, pictures, and expanded and standard forms to represent numbers up to 120				•				
Generate a number that is greater/less than a given whole number up to 120				•				
Use objects and pictorial models to solve word problems involving joining, separating, comparing within 20 and unknowns as any one of the terms		•		•			•	•
Use relationships to determine the number that is 10 more and 10 less than a given number up to 120		•						
Geometry and Measurement								
Classify and sort regular and irregular two-dimensional shapes based on attributes using informal language			•			•		
Create two-dimensional figures			•			•		
Identify two-dimensional shapes			•			•		
Tell time to the hour and half hour using analog and digital clocks					•			
Data Analysis								
Collect, sort, and organize data in up to three categories using models/representations such as tally marks or t-charts							•	•
Use data to create picture and bar-type graphs								•
Draw conclusions and generate and answer questions using information from picture and bar-type graphs							•	•





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Grade 2								
Number and Operations								
Use standard, word, and expanded forms to represent numbers up to 1,200		.						
Use place value to compare and order whole numbers up to 1,200 using comparative language and numbers		.		.				
Partition objects into equal parts and name the parts, including halves and fourths, using words							.	.
Explain that the more fractional parts used to make a whole, the smaller the part; the fewer the fractional parts, the larger the part							.	.
Recall basic facts to add and subtract within 20 with automaticity	.							
Add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations		.						
Use an understanding of place value to determine the number that is 10 or 100 more/less than a given number up to 1,200		.						
Represent and solve addition and subtraction problems where unknowns may be any one of the terms in the problem		.						
Geometry and Measurement								
Create two-dimensional shapes based on given attributes, including number of sides and vertices						.		
Classify and sort polygons with 12 or fewer sides						.		
Read and write to the nearest one-minute increment					.			
Data Analysis								
Explain that the length of a bar in a bar graph represents the number of data points for a category		.						.
Organize a collection of data							.	.
Draw conclusions and make predictions							.	.



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Grade 3								
Number and Operations								
Solve with fluency one-step problems involving addition	•							
Compose and decompose numbers as a sum of so many tens and so many ones								
Explain that the unit fraction $\frac{1}{b}$ represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero number							•	•
Compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models							•	•
Determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally				•				
Represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models							•	•
Explain that two fractions are equivalent if they both represent the same portion of a same size whole for an area model							•	•
Geometry and Measurement								
Use attributes to recognize quadrilaterals						•		
Decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area						•		
Determine the perimeter of a polygon						•		
Determine the solutions to problems involving addition and subtraction of time intervals in minutes					•			
Data Analysis								
Summarize a data set with multiple categories								•





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Grade 4								
Number and Operations								
Compare and order decimals (using concrete and visual models)		•						
Relate decimals to fractions that name tenths and hundredths		•					•	•
Determine if two equivalent fractions are equivalent using a variety of methods				•				•
Compare two fractions with different numerators and denominators and represent the comparison using the symbols $>$, $<$, $=$				•				
Represent the product of 2 two-digit numbers using equations		•						
Geometry and Measurement								
Identify points, lines, line segments, rays, angles, and perpendicular and parallel lines						•		
Apply knowledge of right angles to identify acute, right, and obtuse triangles						•		
Illustrate the degrees as the units used to measure an angle, where $1/360$ of any circle is one degree and an angle that cuts $n/360$ out of any circle whose center is at the angle's vertex has a measure of n degrees					•			
Determine the approximate measures of angles in degrees to the nearest whole number using a protractor					•			





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Grade 5								
Number and Operations								
Compare and order two decimals through the thousandths		•						
Round decimals to tenths or hundredths		•						
Represent and solve addition of fractions with unequal denominators referring to the same whole using objects and pictorial models				•				
Add and subtract positive rational numbers fluently		•						
Geometry and Measurement								
Classify two-dimensional figures by attributes and properties						•		
Recognize a cube with a side length of one unit as a unit cube having one cubic unit of volume							•	
Describe key attributes of the coordinate plane			•					
Describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane			•					
Graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical problems			•					
Data Analysis								
Represent categorical data with bar graphs and numerical data								•

