

**The Metamo4ic Math Center**  
**Math on the Move - Elementary School Math Matinee**  
**Program Information and Guidelines**

**\$400.00 - 2 hour program**

**\$500.00 - 3 hour program**

**\$700.00 - full day (3 two-hour programs or 2 three-hour programs)**

- Each game/activity can accommodate up to 8 students.
- Each game/activity is differentiated from first to fifth grade.
- If combining grade levels, a grade span of no more than 2 grade levels is preferred.
- The program can accommodate up to 120 students.
- Educators will select the games/activities based on their students' needs and by the number of students participating in the program. (Please refer to the table below)
- Students rotate into each game/activity every 15 minutes.
- Educators are responsible for grouping their students into teams/groups based on their own objectives and their students' needs.
- One parent/adult volunteer is required for each game/activity.
- Educators will receive complete program instructions, guidelines, instructional strategies, and instructions for Parent volunteers describing their duties prior to the program.
- A large open area is preferred, but several classrooms will work if there is no large area available.

Whenever possible, we are glad to work with schools and educators to fine-tune our programs to meet extenuating circumstances.

- **Tantalizing Tangrams** - Students gain experience with rotation, reflection, transformation, symmetry, and congruency. Students work to assemble the tangram pieces into the original square shape or into created forms. Students have opportunities to complete other puzzles.
- **Measure Up and Sort Out** - The primary student gains experience identifying and sorting polygons by shape and/or color and using the polygons to create patterns. The intermediate student works with two-dimensional giant-sized polygons to classify, observe, and create rules that apply to those polygons and gain experience measuring

angles with a 4-foot protractor. Perimeter and area are also covered as well as symmetry and asymmetry.

- **Metamo4ic Math Game** - Each game board is 5 feet square. The Metamo4ic Math Game provides students the opportunity to:
  - build equations
  - practice using the order property
  - practice mathematical operations
  - work with fractions
  - develop strategies to build high scoring equations
  - see the equal sign as a balance between two numerical entities

The game is differentiated by removing game tiles from play (for example - blank, or fraction tiles and building equations only horizontally). When developmentally appropriate, each student scores the equation he/she placed on the board and keeps his/her score throughout the game.

- **Head 4 Home** - Players move their 4 pawns around the board by using mathematical operations that are developmentally appropriate (adding, subtracting, multiplying, or dividing) from the numbers rolled on the dice. The winner is the first player to bring their 4 pawns home.
- **4 In a Row** - Players roll giant-size dodecahedron dice and choose numbers to cover on the game board of numbers 1-144. The students may choose to use place value, add, subtract, multiply, or divide the numbers on the dice. The older students are challenged to figure out why this game is difficult to win and develop strategies to make the game simpler to win.
- **Toss Think and Run** - Players toss the giant dodecahedron dice, think of a way to use the numbers in a number sentence, and run to put the numbers in the number sentence builder. Primary students work with addition and subtraction. Intermediate students work with all number operations.
- **Foot Loose** - This activity has the students estimating with 3 different sized feet, using the feet in developmentally appropriate coordinate systems, and comparing the 3 different sized feet.
- **Mad Money** - Giant-size coins and bills make a fun way to skip count, work with odd and even, trade money, make change, and create patterns.

- **UB a Vertex** - Students work as a team to build polygons by being a vertex. Terms vertex (corner) and sides are reinforced. In addition, students work with symmetry and asymmetry.
- **Giant Pick-Up Sticks** - Students have the opportunity to play the game, count their scores, work with probability, make polygons, and write number sentences.
- **Here Fishy-Fishy** - Students fish for sums, differences, products, and quotients. As they fish, they sort the fish by attributes, discover the probability of catching a particular fish, problem-solve which fish could be caught to make a particular score, and write number sentences representing their catch.
- **Doodle Dominoes** - Students play the game of dominoes, work with one to one correspondence, add, subtract, order highest to lowest, order lowest to highest, or sort the dominoes in even and odd piles.
- **Hum Ringer** - Students toss dice into a ring, use the commutative and associative properties to compute their scores, write number sentences, skip count, and sort the dice.
- **Make a Snake** - Students estimate, measure, and build snakes. Students must choose the appropriate measuring tool. Students also transform the snake and describe its assembly with coordinate terms.
- **Magna Math** - Students work with activity in a variety of ways. Students may build pictures and patterns, order the pieces by size, determine which pieces are congruent to one another, work with fractional parts of pieces, measure the pieces or picture with a nontraditional measuring tool, transform the pieces, model mathematical situations, use the pieces in a coordinate system, work with area and/or perimeter, measure angles, and determine whether their picture or a particular piece is symmetrical.

Program	Accommodates up to 48 students	Accommodates up to 56 students	Accommodates up to 64 students	Accommodates up to 72 students	Accommodates up to 80 students	Accommodates up to 88 students	Accommodates up to 96 students	Accommodates up to 104 students	Accommodates up to 112 students	Accommodates up to 120 students
Two-Hour Program Number of Activities	6	7	8	9	10	11	12	13	14	15
Three-Hour Program Number of Activities				9	10	11	12	13	14	15

GLEs - State of Missouri Game/Activity	Number and Operations	Algebraic Relationships	Geometry and Spatial Relationships	Measurement	Data and Probability	Show-Me-Standards
<b>Here Fishy-Fishy</b>	1A; 1C; 1D; 3A; 3B; 3C; 3D	1A; 2A; 2B; 3A		1A	3A; 4A	The following standards apply to all games and activities: 1.6; 2.3; 3.1; 3.2; 3.3; 3.4; 3.6; 3.7; 4.1; 4.4; 4.6; 4.7; M1-6
<b>Pick Up Sticks</b>	1D; 3A; 3B; 3C	2A; 3A	1A; 1C			
<b>Foot Loose</b>	1A; 1B; 2A; 3D	2A		1A; 1B; 2A		
<b>Doodle Dominoes</b>	1A; 1C; 1D; 2A; 3B; 3C	1A; 2A; 2B; 3A				
<b>Mad Money</b>	1A; 1C; 1D; 2A; 2B; 3B; 3C	1A; 2A; 2B; 3A		1D		
<b>Tantalizing Tangrams</b>	1B		1A; 3A; 3C	2A; 2B; 2D; 2E		
<b>Measure Up Sort Out</b>			1A; 1B; 3A; 3B; 3C; 4B	1A; 2A; 2B; 2C; 2D; 2E		
<b>Hum Ringer</b>	1A; 1C; 1D; 2A	2A; 2B; 3A; 1B			3A	
<b>Make a Snake</b>			2A; 3A	1A; 1B; 2A		
<b>Magna Math</b>	1B	1A; 2A;	1A; 1C; 2A; 3A; 3C	1A; 2A; 2B; 2C		
<b>Metamo4ic Math Game</b>	1B; 1C; 1D; 2B; 2C; 2D; 3C; 3D	2A; 2B; 3A; 4A				
<b>Toss Think and Run</b>	1A; 1C; 2B; 3A; 3B; 3C; 3D	2A; 2B; 3A			4A	
<b>Head 4 Home</b>	1A; 1C; 2B; 3A; 3B; 3C; 3D	2A; 2B; 3A			4A	
<b>4 In a Row</b>	1A; 1C; 2B; 3A; 3B; 3C; 3D	2A; 2B; 3A			4A	
<b>UB a Vertex</b>			1A; 3A; 3C	This activity requires the students to use team building and problem solving skills not included in the GLEs		