



Program Guide & Workbook

© Learn Thru Movement

Welcome to the Math & Movement Family Fun Night!

- **1**. Stations can be done in any order.
- 2. Write down your answers in this workbook, using the mats to help you solve the questions!
- Have fun with your friends and family!





Add/Subtract Hop

To add with this mat, stand on the first number of the problem. Then, jump forward the number of spaces that equal the second number. What number did you land on? That's your answer!

_				Annes		-		-	-
T	2	3	4	5	6	7	8	9	10
П	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

To subtract, start on the first number, and then walk towards zero the number of spaces that equal the second number. Try it out with the problems below!

Solve these problems using the mat			
6 + 12 =	3 - 2 =		
88 + 4 =	7 + 12 =		
12 + 5 =	25 - 10 =		
8 - 2 =	81 + 5 =		
44 - 3 =	17 + 5 =		
55 + 7 =	40 - 3 =		
17 - 3 =	99 - 21 =		



Roll two dice... Find the number they make when placed together...25! Find 25 on the mat.



What is one more than 25? What is one less?

Skip Counting by 2s

Jump on the Mat!

20

18

16

|5 |4

13

12

11

10

9

8

600 5 400

2

1. Stand on the START HERE block.

2. Jump on the 1 and whisper, "one."

3. Clap and jump on the "2" as you shout, "TWO!"

4. Jump on the 3 and whisper, "three."

5. Clap and jump on the "4" as you shout, "FOUR!"

6. Keep going all the way to the end of the mat.

Do it again at least once, but twice is better!

How to Solve Problems Using the Mat

Example: 2 x 2

Stand on the 'Start Here' block. Then, jump forward on the BLUE multiple blocks TWO times (x 2). What are you standing on? FOUR! That's your answer!

Now solve these problems:				
2 + 2 =	2 x 2 =			
2 + 2 + 2 =	2 x 3 =			
2 + 2 + 2 + 2 =	2 × 4 =			
2 + 2 + 2 + 2 + 2 =	2 x 5 =			
7 + 5 =	14 - 4 =			
6 + 8 =	16 - 12 =			
10 + 10 =	6 - 5 =			

Skip Counting by 3s

Jump on the Mat!

- 1. Stand on the START HERE block.
- 2. Jump on the 1 and whisper, "one."
- 3. Jump on the 2 and whisper, "two."
- 4. Clap and jump on the "3" as you shout, "THREE!"
- 5.Jump on the 4 and whisper, "four."
- 6.Jump on the 5 and whisper, "five."
- 7. Clap and jump on the "6" as you shout, "SIX!"
- 8. Keep going all the way to the end of the mat.

Jumping Multiples

The numbers on the red spaces are the multiples of 3. Jump down the mat on the red spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the red spaces by the number you are multiplying 3 by. What number did you jump to? That is your answer!

3 x 3 = _____

7 x 3 = _____

10 x 3 = _____

6 x 3 = _____

Division

Stand on the first number of the problem and jump back to zero on the red spaces. How many hops did it take to get back to zero? That is your answer!

 $9 \div 3 =$ $21 \div 3 =$
 $30 \div 3 =$ $15 \div 3 =$
 $12 \div 3 =$ $6 \div 3 =$

Skip Counting by 4s

Jump on the Mat!

1. Stand on the START HERE block.

2. Jump on the 1 and whisper, "one."

3. Jump on the 2 and whisper, "two."

4. Jump on the 3 and whisper, "three."

5. Clap and jump on the "4" as you shout, "FOUR!"6. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the bright pink spaces are the multiples of 4. Jump down the mat on the bright pink spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the bright pink spaces by the number you are multiplying 4 by. What number did you jump to? That is your answer!

> 9 × 4 = _____ 3 × 4 = _____

> 5 x 4 = _____

7 x 4 = _____

10 x 4 = _____

6 x 4 = _____

Division

Stand on the first number of the problem and jump back to zero on the bright pink spaces. How many hops did it take to get back to zero? That is your answer!

16 ÷ 4 =	24 ÷ 4 =
40 ÷ 4 =	20 ÷ 4 =
12 ÷ 4 =	4 ÷ 4 =

Skip Counting by 6s

Jump on the Mat!

1. Stand on the START HERE block. 2. Jump on the 1 and whisper, "one." 3. Jump on the 2 and whisper, "two."

4. Jump on the 3 and whisper, "three."5. Jump on the 4 and whisper, "four."

6. Jump on the 5 and whisper, "five."

7. Clap and jump on the "6" as you shout, "SIX!"

8. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the yellow spaces are the multiples of 6. Jump down the mat on the yellow spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the yellow spaces by the number you are multiplying 6 by. What number did you jump to? That is your answer!

5 x 6 =

7 x 6 = _____

60

54

4.9

29

36

30

20

18

12

6

10 x 6 =

6 x 6 =

Division

Stand on the first number of the problem and jump back to zero on the yellow spaces. How many hops did it take to get back to zero? That is your answer!

> 18 ÷ 6 = ____ 30 ÷ 6 = ____ 54 ÷ 6 = ____ 42 ÷ 6 = ____ 60 ÷ 6 = 6 ÷ 6 = ____

Skip Counting by 7s

Jump on the Mat!

Stand on the START HERE block.
 Jump on the 1 and whisper, "one."
 Jump on the 2 and whisper, "two."
 Jump on the 3 and whisper, "three."
 Jump on the 4 and whisper, "four."
 Jump on the 5 and whisper, "five."
 Jump on the 6 and whisper, "six."
 Clap and jump on the "7" as you shout, "SEVEN!"
 Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the green spaces are the multiples of 7. Jump down the mat on the yellow spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the green spaces by the number you are multiplying 7 by. What number did you jump to? That is your answer!

9 x 7 = _____ 3 x 7 = _____

5 x 7 = _____

7 x 7 = _____

10 x 7 = _____

6 x 7 = _____

Division

Stand on the first number of the problem and jump back to zero on the green spaces. How many hops did it take to get back to zero? That is your answer!

 $14 \div 7 =$ $42 \div 7 =$
 $70 \div 7 =$ $56 \div 7 =$
 $63 \div 7 =$ $35 \div 7 =$

Skip Counting by 8s

Jump on the Mat!

- 1. Stand on the START HERE block.
- 2. Jump on the 1 and whisper, "one."
- 3. Jump on the 2 and whisper, "two."
- 4. Jump on the 3 and whisper, "three."
- 5. Jump on the 4 and whisper, "four."
- 6. Jump on the 5 and whisper, "five."
- 7. Jump on the 6 and whisper, "six."
- 8. Jump on the 7 and whisper, "seven."

9. Clap and jump on the "8" as you shout, "EIGHT!" 10. Keep going with the whisper/loud pattern all the way

to the end of the mat.

Jumping Multiples

The numbers on the light pink spaces are the multiples of 8. Jump down the mat on the light pink spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the light pink spaces by the number you are multiplying 8 by. What number did you jump to? That is your answer!

> 9 x 8 = _____ 3 x 8 = _____

5 × 0 = ____

5 x 8 = _____

7 x 8 = _____

10 x 8 = _____

6 x 8 = _____

Division

Stand on the first number of the problem and jump back to zero on the light pink spaces. How many hops did it take to get back to zero? That is your answer!

 $32 \div 8 =$ $72 \div 8 =$
 $40 \div 8 =$ $8 \div 8 =$
 $24 \div 8 =$ $80 \div 8 =$

Skip Counting by 9s

Jump on the Mat!

- 1. Stand on the START HERE block.
- 2. Jump on the 1 and whisper, "one."
- 3. Jump on the 2 and whisper, "two."
- 4. Jump on the 3 and whisper, "three."
- 5. Jump on the 4 and whisper, "four." 6. Jump on the 5 and whisper, "five."
- 7. Jump on the 6 and whisper, "six."
- 8. Jump on the 7 and whisper, "seven."
- 9.Jump on the 8 and whisper, "eight."
- 8. Clap and jump on the "9" as you shout, "NINE!"

11. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the gold spaces are the multiples of 9. Jump down the mat on the gold spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the gold spaces by the number you are multiplying 9 by. What number did you jump to? That is your answer!

5 x 9 = _____

7 x 9 = _____

10 x 9 = _____

6 x 9 = _____

Division

Stand on the first number of the problem and jump back to zero on the gold spaces. How many hops did it take to get back to zero? That is your answer!

 $9 \div 9 =$ _____
 $27 \div 9 =$ _____

 $63 \div 9 =$ _____
 $90 \div 9 =$ _____

 $45 \div 9 =$ _____
 $81 \div 9 =$ _____

Hopping by 100s

Jump on the Mat!

1000 900 800

700

600

500

400

300

200

1. Stand on the START HERE block.

2. Jump on the 100 and shout, "ONE HUNDRED!"

3. Jump on the 200 and shout, "TWO HUNDRED!"

4. Jump on the 300 and shout, "THREE HUNDRED!"

5. Continue down the mat to 1000.

Do it again at least once, but twice is better!

How to Solve Problems Using the Mat

Example: 200 + 200

Stand on first number of the question, 200. Then, jump forward TWO times (+ 200). What are you standing on? FOUR HUNDRED! That's your answer!

Now solve these problem	ns using the mat:
100 + 300 =	600 - 100 =
400 + 200 =	700 - 100 =
800 + 100 =	300 - 300 =
500 + 400 =	900 - 500 =
300 + 100 =	200 - 100 =

Fraction Walk

- 1. Stand on the 1.
- 2.Say the whole numbers aloud as you walk up the mat.
- 3.Start again, this time saying the halves as you walk up the mat. Pause at each whole number and say how many halves equal each whole as you go.
- 4. Now, walk and say the same for thirds and sixths.

Do it again at least once, but twice is better!



Fractions Greater Than One

Fractions greater than 1 are when the numerator (the top number) is bigger than or equal to the denominator (the bottom number). To identify these fractions, find the fractions on the mat that have numerators bigger than the denominators!

Write 3 fractions greater than one that you found:

Solve these problems using the mat... Reduce your answers!

How many thirds are in 5?			
How many sixths are in 2?			
1/3 + 8/3 =	4/6 - 2/3 =		
4/3 - 3/3 =	5/6 + 7/6 =		
10/3 + 2/6 =	7/6 - 2/6 =		

Hopscotch for 35

Jump on the Mat!

19 20

0 1

- 1. Start with one foot on 1 and the other on 2. Whisper, "one, two."
- 2. Hop on the 3 on one foot and shout, "THREE!"
- 3. Jump on the 4 and 5 and whisper, "four, five."
- 4. Hop on the 6 and shout, "SIX!"
- 5. Continue to hopscotch down the mat while counting up to 30.

Do it again at least once, but twice is better!

Multiply by 3s

Stand on Start Here. Notice that the multiples of 3 are all of the single blocks. Jump forward on the single blocks by the number you are multiplying 3 by. For example, if you are multiplying 3 x 2, you would jump on the 3, and then the 6. What number did you jump to? That is your answer! Now try answering the problems below!



Place Value Hop



How many tens are there? _____ How many hundreds are there? _____

How many thousands are there? ____

- 2. Place sticks on the row that says "Build the Number" to show the value of each numeral. (Put 2 sticks under the ones, put 7 bundles of ten sticks under the 7 etc.)
- 3. Read the number you made by jumping on each numeral and then its place value, starting at the largest digit.
- 4. Repeat with the following numbers:

485

54,374

984,012

6,543,289

23,777,182,030,694

Dollar Hop

Jump on the Mat!

- 1. Stand on the START HERE block.
- 2. Count the pennies on the mat.
- 3. Jump onto the pennies and say, "____ pennies is the same as 1 dollar."
- 4. Count the nickels on the mat.
- 5. Jump onto the nickels and say, "____ nickels is the same as 1 dollar."
- 6. Count the quarters on the mat.
- 7. Jump onto the quarters and say, "____ quarters is the same as 1 dollar."
- 8. Count the half-dollars on the mat.
- Jump onto the half-dollars and say, "____ halfdollars is the same as 1 dollar."

Do it again at least once, but twice is better!

Solve these problems using the mat...

Jump on each coin and count by its value, starting with the largest. Example: 2 dimes + 10 pennies = ? Jump on the dime box once, say, "10." Twice, "20." Jump on the pennies and add 1 with each jump. 1 jump, "21." 2 jumps, "22"....10 jumps, "30." Now you try!



Factor Fun

To use this mat, place the factor cards in their places, multiply to find the answer (the product), and place the product cards in their places.



Times Table

Point to one of the 'product' cards on the mat. Look at its two factors and say the equation they make. Example: $3 \times 4 = 12$



Clock Hop

What Time is it?

Make 2:00 on the mat. Use a ruler as the hour hand and a yardstick as the

minute hand. Or, lie down on the mat and use your arms as the hour hand and your legs as the minute hand!

Make these times on the mat			
3:15	7:23		
4:20	10:45		
9:55	1:15		
8:24	12:30		
11:36	2:57		

Elapsed Time

Stand on 3:10. What time will it be in 15 minutes?

Stand on 7:30. What time will it be in 45 minutes?

Cartesian Coordinate

Using the Mat

On this mat, you will have fun finding the animal's home using a set of points called coordinates. Put your animal in the center of the mat. The first number in the coordinate tells you how many spaces to move your animal horizontally (sideways) and the second number is how far to move it vertically (up and down). Place the animal where the two numbers meet - this is where it lives! Find the other animals homes using the coordinates below.



Equivalent Fraction



Jump on the Mat!

- Stand on the large purple 1. Notice how the top line on the 1 box matches up to the top line of the 2/2 box.
- 2. Jump on 2/2. Say, "One is the same as two halves."
- 3. Jump on 3/3. Say, ""One is the same as three thirds."
- 4. Jump on 4/4. Say, ""One is the same as four fourths."
- 5. Continue to jump to say all the fractions that are the same as 1.
- 6.Stand on 1/2. Jump to the right to 2/4. Say, "1/2 is equivalent to 2/4."
- Continue to jump to the right to find all the fractions equivalent to 1/2.
- 8. Jump to find all the fractions that are equivalent to the following: 1/3, 1/4, 1/5, 2/3, 3/4, 2/5, 4/5.

Fractions to One Whole

- 1. Start at the bottom of the mat on the 1/2.
- 2. Walk up the mat to determine how many halves make a whole.
- 3. Say, "one half, two halves make a whole."
- 4. Stand on the 1/3 and walk towards the top of the mat.
- 5. Say, "one third, two thirds, three thirds make a whole."
- 6. Continue across the mat.

Equivalent Fraction Slide

- 1. With a partner, stand on two fractions you think are equal.
- 2. Ask, "Whose fraction is greater?" "Are they equivalent or equal?"
- 3. Slide your feet across the top line of the box you are standing on. If your feet touch, you found an equivalent fraction!
- 4. If your feet matched up, high five and see if you can find another pair of equivalent fractions.
- 5. If your feet didn't meet one of your fractions was bigger than the other. Can one of you find a fraction that is equal to your partners?

Solve these problems using the mat
2/4 is equivalent to
1/3 is equivalent to
2/5 is equivalent to
4/6 is equivalent to
8/10 is equivalent to
1/4 is equivalent to
3/9 is equivalent to
3/3 is equivalent to
1/6 is equivalent to

Geometric Shapes

Name That Shape

- 1. Roll a dice or a number cube.
- 2. Jump to that number and say the name of the geometric shape that has that number of sides.

Jump the Shapes

START HERE

- 1. Stand on the START HERE block.
- 2.Jump on the 'triangle' block and say, "Triangle. A triangle has three sides." Bend down and point to each side and count, "one, two, three." Then say, "A triangle has three vertices," and count the vertices.
- 3. Jump on the 'square' block and say, "Square. A square has four sides." Bend down and count the sides and vertices.
- 4. Continue down the mat.

Shape Match

Think of real life objects that correspond with each shape. Write your answers below!

Triangle :				
Square :				
Pentagon :				
Hexagon :				
Heptagon :				
Octagon :				
Nonagon :				
Decagon :				

Count to 10

Jump on the Mat!

0000

1. Start on zero.

2. Jump on the 1 and shout "ONE!"

3. Jump on the 2 and shout "TWO!"

4. Jump on the 3 and shout "THREE!"

5. Continue on to 10.

Do it again at least once, but twice is better!

Bean Bag Decides

- 1. Stand on the START HERE block.
- 2. Toss the bean bag onto the mat.
- 3. Jump on the numbers while saying them out loud until you reach the bean bag.
- 4. Pick up the bean bag and jump back to the start and toss it again.

Do it again at least once, but twice is better!

Solve these problems using the mat
one plus three equals
two plus four equals
ten minus eight equals
five minus two equals
three plus seven equals

Make 100 Hop

Notice how this mat counts by tens! To add with this mat, stand on the first number of the problem. Then, jump forward the number of tens spaces that equal the second number. What number did you land on? That's your answer!



To subtract, start on the first number, and then walk towards zero the number of ten spaces that equal the second number. Try it out with the problems below!

Solve these problems using the mat				
410 + 10 =	350 - 20 =			
880 + 40 =	70 + 30 =			
120 + 50 =	250 - 100 =			
800 - 200 =	910 + 70 =			

Rounding to the Nearest 10

Think of a number between 10 and 1,000. Find which two numbers your number is between on the mat and stand there. Is the second digit of your number 5 or above? If so, round to the higher number you are standing beside. If the second digit of your number is less than 5, round to the lower number.

Round 65 to the nearest 10 _____ Round 389 to the nearest 10 _____ Round 742 to the nearest 10 _____ Round 994 to the nearest 10 _____

Multiplication Hopscotch

Jump on the Mat!

In

9

64

- 1. Stand on the START HERE block.
- 2. Hop both feet on to the red 'one' and 'one' blocks. Say, "one times one."
- 3. Hop one foot on to the orange 'one' block. Shout "EQUALS ONE."
- 2. Hop both feet on to the yellow 'two' and 'two' blocks. Say, "two times two."
- 3. Hop one foot on to the green 'four' block. Shout "EQUALS FOUR."
- 4. Continue down the mat.



Angle Hop

Jump on the Mat!

- 1. Stand on the START HERE block.
- 2. Jump on the acute angle and say, "acute angle!" Make an acute angle with your arms.
- 3. Jump on the obtuse angle and say, "obtuse angle!" Make an obtuse angle with your arms.
- 4. Jump on the straight angle and say, "straight angle!" Make a straight angle with your arms.
- 5. Continue down the mat.

Now solve these problems using the mat:

Which angle is greater? A right angle or an acute angle?

Which angle is less? A straight angle or an obtuse angle? _____

My angle is exactly 90 degrees. What am I?

Draw an obtuse angle:

Positive/Negative Number

The Number Walk - Backwards

10

-2 -3 -4 -5 -6

1. Start on positive 10, facing the rest of the mat.

2. Walk to the positive 9 and say, "Nine."

- 3. Walk to the positive 8 and say, "Eight."
- 4. Continue all the way to negative 10.

When you reach the negative numbers, be sure to say, "Negative," before each number. Example: On the negative 7 you will say, "Negative Seven."



- 1. Stand on the number line on the first number of the equation. Always face the positive numbers.
- Decide if turns are necessary. Are you adding or subtracting? If you're subtracting, make a 180 degree turn. Is the second number negative or positive? If its negative, make a 180 degree turn.



Multiplication Hop

Skip Counting Fun

- 1. Stand next to the pattern of skip counting numbers, either by the row
- counting numbers, either by the row or the column. 2. Jump on each number while skip counting.
- 3. Continue with another row or column!

Multiplication

Notice the numbers around the blue border. The numbers 1-10 run across and down the colorful grid. You can use these numbers to solve multiplication facts! For example, 4×6 . Find the number 4 down the left side of the mat in the blue border. Stand there (next to the yellow row). Then, look up to find the number 6 near the top of the mat in the blue border. Then, walk forward SIX steps in the yellow row...4, 8, 12, 16, 20, 24! 4×6 is 24!





Trace and Find

1. Trace each number with two fingers (pointer and middle) and say the number.

0

6

2

2

3

10

- 2. Jump through each number, saying the number out loud as you jump on it!
- 3. Ask another student, parent, or teacher call out a number from 1-10.
- 4. Find that number on the mat and jump to it!



Open Number Line

Number Line 1-20

- 1. Use notecards or number cards to label each hash mark on the mat from 1-20.
- 2. Jump down the number line saying each number out loud and you jump!
- 3. Solve the following problems with your number line. For example, 7 + 5. Stand on the 7 and jump forward five lines...your answer is 12!

5 + 6 =

16 – 4 =

1 + 10 = _____

20 – 7 = _____

Multiples of 10 1. Use notecards or number cards to label the multiples of ten on the hash marks on the mat, starting with 0 and ending with 100. 2. Jump down the number line skip counting by 10. 3. Solve the following problems with your new number line 50 + 20 =60 - 40 =30 - 10 = 100 - 80 =What two numbers on your number line does the number 52 go between? _____ and _____ Is 23 closer to 20 or 30?

Measurement Hop

Measuring Lengths

11

10 feet

9 feet

8 feet

7 feet

6 feet

- 1. Lie down on the mat and measure how tall you are. Find your height in inches, feet, and yards! Record your height _____
- 2. Measure something else you can find in the room. Your foot, a pencil, or anything else you can find. Object name _____

Record the length _____

Solve these problems using the mat:

- 1 foot = _____ inches
- 10 feet = _____ inches
- 1 yard = _____ feet
- 3 yards = _____ feet

6 feet 4 inches = _____ inches

What unit of measurement would you use to measure a teddy bear?

What unit of measurement would you use to measure a car?



Doubles Hopscotch

Hop Through Addition

- 1. Stand on the START HERE block.
- 2. Hop both feet on to the red 'one' and 'one' blocks. Say, "one plus one."
- 3. Hop one foot on to the orange 'two' block. Shout "EQUALS TWO."
- 2. Hop both feet on to the yellow 'two' and 'two' blocks. Say, "two plus two."
- 3. Hop one foot on to the green 'four' block. Shout "EQUALS FOUR."
- 4. Continue down the mat.



Hopping by 1000s

Jump on the Mat!

10000

9000 8000

7000

6000

5000

4000

3000

2000

1000

- 1. Stand on the START HERE block.
- 2. Jump on the 1,000 and shout, "ONE THOUSAND!"
- 3. Jump on the 2,000 and shout, "TWO THOUSAND!"
- 4. Jump on the 3,000 and shout, "THREE THOUSAND!"
- 5. Continue down the mat to 10,000.

Do it again at least once, but twice is better!

How to Solve Problems Using the Mat

Example: 2,000 + 2,000

Stand on first number of the question, 2,000. Then, jump forward TWO times (+ 2,000). What are you standing on? FOUR THOUSAND! That's your answer!

Now solve these problems using the mat:1000 + 3000 =6000 - 1000 =4000 + 2000 =7000 - 1000 =8000 + 1000 =3000 - 3000 =5000 + 4000 =9000 - 5000 =3000 + 1000 =2000 - 1000 =