math & movement

Family Fun Night

Program Guide & Workbook

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!
3. Have fun with your friends and family!

Let's get started!

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!

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 = _____

88 + 4 = _____

12 + 5 = _____

8 - 2 = _____

44 - 3 = _____

55 + 7 = _____

17 - 3 = _____

3 - 2 = _____

7 + 12 = _____

25 - 10 = _____

81 + 5 = _____

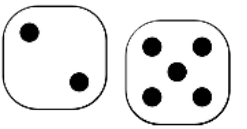
17 + 5 = _____

40 - 3 = _____

99 - 21 = _____

For younger students...

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!

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 x 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!

$9 \times 3 =$ _____ $7 \times 3 =$ _____

$3 \times 3 =$ _____ $10 \times 3 =$ _____

$5 \times 3 =$ _____ $6 \times 3 =$ _____

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!

$9 \times 4 =$ _____ $7 \times 4 =$ _____

$3 \times 4 =$ _____ $10 \times 4 =$ _____

$5 \times 4 =$ _____ $6 \times 4 =$ _____

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!

$16 \div 4 =$ _____ $24 \div 4 =$ _____

$40 \div 4 =$ _____ $20 \div 4 =$ _____

$12 \div 4 =$ _____ $4 \div 4 =$ _____

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!

$9 \times 6 =$ _____ $7 \times 6 =$ _____

$3 \times 6 =$ _____ $10 \times 6 =$ _____

$5 \times 6 =$ _____ $6 \times 6 =$ _____

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!

$18 \div 6 =$ _____ $30 \div 6 =$ _____

$42 \div 6 =$ _____ $54 \div 6 =$ _____

$60 \div 6 =$ _____ $6 \div 6 =$ _____

Skip Counting by 7s

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. Clap and jump on the "7" as you shout, "SEVEN!"
9. 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!

$9 \times 7 =$ _____ $7 \times 7 =$ _____

$3 \times 7 =$ _____ $10 \times 7 =$ _____

$5 \times 7 =$ _____ $6 \times 7 =$ _____

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!

$9 \times 8 =$ _____ $7 \times 8 =$ _____

$3 \times 8 =$ _____ $10 \times 8 =$ _____

$5 \times 8 =$ _____ $6 \times 8 =$ _____

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!

$9 \times 9 =$ _____ $7 \times 9 =$ _____

$3 \times 9 =$ _____ $10 \times 9 =$ _____

$5 \times 9 =$ _____ $6 \times 9 =$ _____

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!

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

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

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

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 3s

Jump on the Mat!

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!

Solve these problems using the mat...

3 x 3 = _____ 3 x 2 = _____

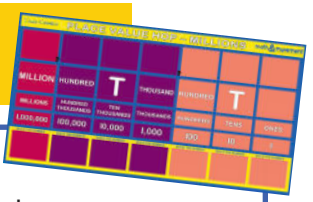
3 x 6 = _____ 3 x 5 = _____

3 x 7 = _____ 3 x 10 = _____

3 x 8 = _____ 3 x 4 = _____

3 x 9 = _____ 3 x 1 = _____

Place Value Hop



1. Show the number **5,372** on the mat by placing each numeral on the correct place value space.

   How many ones are there? _____

   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

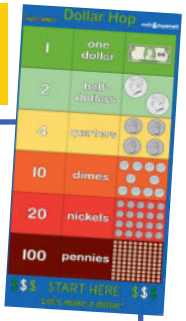
54, 374

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.
9. Jump onto the half-dollars and say, "___ half-dollars 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!

3 quarters + 2 dimes = _____

6 nickels 4 pennies = _____

3 half-dollars + 10 pennies = _____

1 dollar + 3 nickels = _____

1 half-dollar + 50 pennies = _____

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 x 4 = 12

Record Your Times Table in the Boxes Below!

factors → / ↓			

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

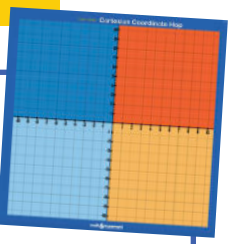
Stand on 3:10. What time will it be in 15 minutes?

_____

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.

Find these points on the mat...

(-4, -8)	(7, -10)
(3, 8)	(-6, -5)
(1, -9)	(-10, 10)
(-2, 7)	(8, 0)
(-5, 4)	(9, -2)

Multiplication Hop

Skip Counting Fun

1. Stand next to the pattern of skip 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 x 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 x 6 is 24!

Now solve these problems using the mat:

$3 \times 9 =$ _____ $6 \times 7 =$ _____

$2 \times 8 =$ _____ $10 \times 5 =$ _____

$4 \times 4 =$ _____ $8 \times 10 =$ _____

$6 \times 2 =$ _____ $9 \times 9 =$ _____

Equivalent Fraction

Jump on the Mat!

1. 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."
7. 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 _____

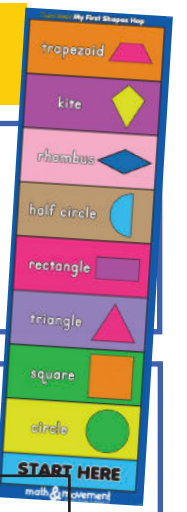
1/4 is equivalent to _____

3/9 is equivalent to _____

3/3 is equivalent to _____

1/6 is equivalent to _____

My First Shapes



Jump the Shapes

Stand on "Start Here." Jump on each shape and shout the shape name as you jump.

Draw the Shape

Half Circle	Rectangle
Rhombus	Circle
Trapezoid	Kite
Triangle	Square