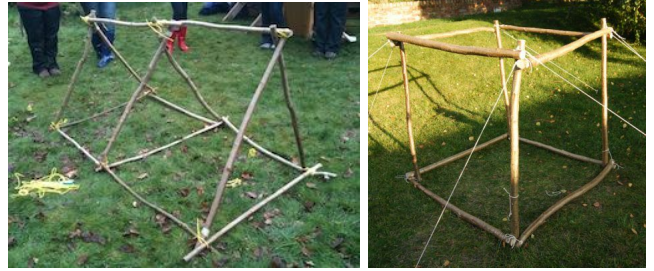


# Outdoor Math Adventures 4th - 6th Grade

## Summer 2020

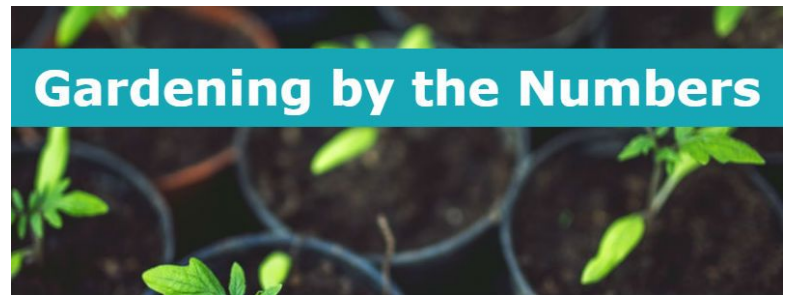
**Creating 3D Nets from Sticks** - Have your child/children find sticks. Using rope, tape, string, or yarn have them try to make a 3D shape.



**Gardening by the Numbers:** Have your child/children plot out a garden. They must first measure the area and identify which herbs, vegetables, and/or flowers will be planted within the space. Because each item needs space and sunlight, any young gardener can use these factors to become a budding mathematician.

Start with a pencil and graph paper, measuring tape, and a journal.

For enrichment, a child/children can also calculate the volume of soil needed for a specific area or planter box by using geometry and algebra--which will also come in handy when calculating the amount of mix-in fertilizer for each plant. You can even have children calculate the cost for seeds, soil, fertilizer, etc. and compare these costs to purchasing the produce from a grocery store.



**Water Balloon Math** - You will need water balloons, a sharpie, and sidewalk chalk. Choose your number targets. Write the number targets in chalk. Fill up your water balloons and write equations on them. Have your child/children choose a balloon, solve the equation and throw it at the number target once they say the answer out loud. For a challenge use fractions in your equations.

Example:

Number Targets: 24, 48, 63, 121

Equations:  $12 \times 2$ ,  $6 \times 8$ ,  $7 \times 9$ ,  $11 \times 11$

## Water Balloon Math

active learning outside



**Multiplication Hopscotch** - You will need sidewalk chalk, a rock or shell, a set of multiples to practice. Depending on what your child or students are working on you can write (or have them write) the multiples of a number in the squares or you can write the multiplication facts on the squares. Then play! The kids hop and skip count at the same time-moving and seeing while counting is a great way to help those math facts stick in their brains!



**Big Number Board Game** - You will need sidewalk chalk. Create two game boards as seen in the picture. Have your child jump on a spot on the yellow board followed by jumping on an operation symbol, followed by a spot on the green board. Once your child jumps on all three have them solve the equation they made.

0	1	2
3	4	5
6	7	8
9	$\frac{1}{4}$	$\frac{1}{2}$

+
x
÷

0	1	2
3	4	5
6	7	8
9	$\frac{1}{4}$	$\frac{1}{2}$

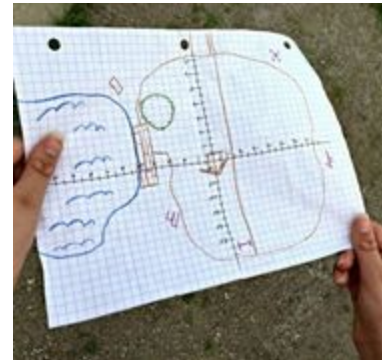
**All around Sports:** Basketball, soccer, whatever your sport- you can have fun with math. Have your child try predicting how many baskets or goals they can make out of 10. Then ask your child to convert the number of shots that they made into a percentage. Try skip counting while making shots/goals.



**Bake with Math:** Choose a fun recipe to make together! Follow each step and identify each measurement as you go! Enjoy your treat!



Create a map of your house, backyard, or other area using graph paper (or even better - have kids help you do it). Then choose plot points for them to visit to find notes or small prizes.



**Bowling Math:** Set up empty plastic bottles labeled one through 10 (or your choice of numbers), then roll the ball to see how many you can knock down. Multiply the numbers of the knocked-over bottles to get your score. You can also use fractions!



Painted rocks are always a big hit! Have your child help you make these, then hide them around the house or backyard and send them off to find and answer equations. You can use any operation you'd like. You could even paint fractions on the rocks!



Kids who love dance will get into this one. Make a number mat like the ones shown. Shout/Show an equation with an answer between 10 and 99.. Kids figure out the answer and jump to put their left foot on the correct tens place, right foot on the ones. They'll be dancing and spinning as they learn!

