

Summer Math Adventure: Pre-K



WISCONSIN
MATHEMATICS
COUNCIL, INC.

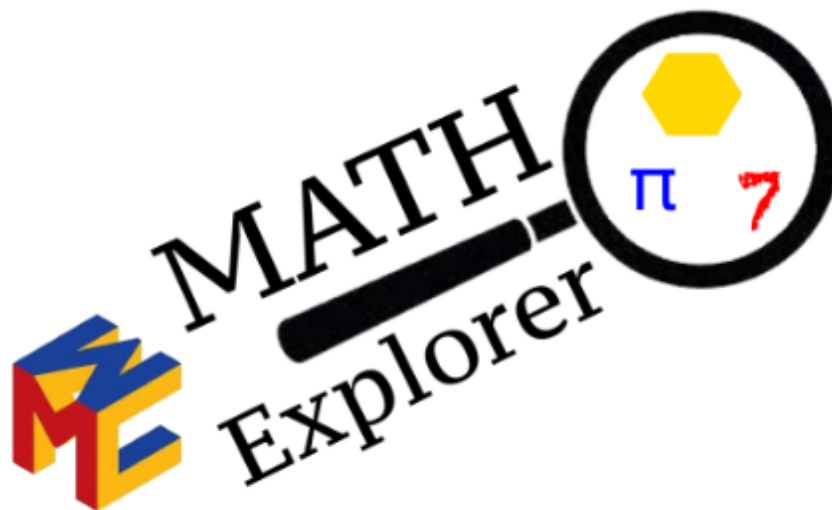
Introduction and Welcome

Welcome to your summer math adventure! You can access the program at the following site:

bit.ly/WMCSummer

Use the grid of activities to explore math this summer. Complete all of the activities in a row, column, or diagonal to earn a prize. Complete all 25 activities for a bonus prize!

Click on the links in the grid to explore different activities. Click on the link in the lower right corner of each activity to return to the grid. Have fun!



Visit <https://forms.gle/YePghR3rNj6JYYuJ7> or scan this QR code with your mobile device to help us make this program better



Summer

Math Adventure

Around the Home

Math Play
at Home

Getting
Dressed

Bird
Data

Fingerplays

Scavenger
Hunt

Outdoors

Obstacle
Course

Roll to
Win

Math
Walk

Sidewalk
Chalk Number
Path

Plan a
Picnic

The Arts

Freestyle
Symmetry
Art

Nature
Mandalas

Counting
Songs

Many
Shapes
Picture

Steady Beat,
Rhythm, and
Melody

Books

More,
Fewer,
Less

Count Me In: A
Parade of
Mexican Folk Art
Numbers

Color
Farm

Five
Creatures

Baby Goes
to Market

Games & Puzzles

The
Number
Game

Crazy
Train

I Spy

Number
Lotería

Fill the
Cup



WISCONSIN
MATHEMATICS
COUNCIL, INC.

Math Play At Home

Use the following game ideas to explore sizes, number, shape, and other attributes of objects at home. [En español](#)

Which one doesn't belong?

Why?

Keep going! Can you think of another idea?



Find...

SIZES

How to Play:

"I see a **small** button! I see a **tall** lamp! What can you find?"

Look around you to find something big, small, short, and tall.

Write or draw what you see.

THIS MANY

How to Play:

"I see **one** couch! I see **two** lamps!"

Can you find a group of one, two, three, or four?

Look around you to find groups of each size.

Write or draw what you see.

SHAPES

How to Play:

"I see a **cone**! I see a **sphere**! What shapes can you find?"

Look around you to find a sphere, a cone, a cube, and a cylinder.

Write or draw what you see.



Play these games anywhere!

Share your ideas!

@mathanywhere



www.mathanywhere.org

[Return to Activity Grid](#)

JUEGO DE MATEMÁTICAS en CASA

¿Cual no pertenece?

¿Por qué?

¡Sigue adelante!

¿Se te ocurre otra idea?



Encuentra...

CIERTA CANTIDAD

Cómo jugar:

"¡Veo **un** sofá! Veo **dos** lámparas!"

¿Puedes encontrar un grupo de uno, dos, tres o cuatro?

Mira a su alrededor para encontrar grupos de cada tamaño.

Escribe o dibuja lo que ves.

FIGURAS

Cómo jugar:

"¡Veo un **cono**! ¡Veo una **esfera**! ¿Qué figuras puedes encontrar?"

Mira a tu alrededor para encontrar una esfera, un cono, un cubo y un cilindro.

Escribe o dibuja lo que ves.

TAMAÑOS

Cómo jugar:

"¡Veo una **pequeño** boton! ¡Veo una lámpara **alta**! ¿Que puedes encontrar?"

Mira a tu alrededor para algo grande, pequeño, bajo y alto.

Escribe o dibuja lo que ves.



Juega estos juegos en cualquier lugar!

¡Comparte tus ideas!

@mathanywhere



www.mathanywhere.org

Getting Dressed



Around the House

Find the Math:

While getting dressed, talk about sizes, shapes, and patterns on clothing.

Talk About the Math:

“Look at the pattern on your shirt! it goes: narrow blue stripe then wide green stripe. Now, you show me what comes next. What other patterns do you see?”

This activity is one of the [DREME Family Math Routines](#).

[Return to Activity Grid](#)



Bird Data



What questions do you have about birds? Are you interested in their different colors or sizes? Gather some data to answer your questions.

You don't need to go far. Birds can be seen in your backyard or while looking out your window. Make a list of specific birds, sizes, or colors to look for and count.

Birds can be hard to spot. Practice staying still and looking for the movements of birds. You might try [making DIY cardboard binoculars](#) to help stay focused.



Adapted from
<https://earlymath.erikson.edu/data-collection-activities-birds/>

[Return to Activity Grid](#)

Audubon for Kids

DIY Craft: How to Make Cardboard Binoculars for Kids

Create a fun pair of paper binoculars using materials from around the house. Now your child is ready for a birding adventure!

Your kid doesn't need to have the motor skills to handle real binoculars before you take them birding for the first time. These DIY binoculars will make any nature walk (or ramble through the yard) feel like a wildlife adventure. This craft is quick and easy to create so that you can head to the great outdoors for a fun inaugural birding experience.

Materials

Cardboard rolls leftover from paper towels or toilet paper

Tape or glue

Hole punch

String (yarn, ribbon, twine, whatever you have around!)

Markers, colored paper, and any other craft materials

How to Make DIY Binoculars

1. Take two toilet paper rolls (or a paper towel roll carefully cut in half), and attach them together side by side using tape or glue.
2. Wrap paper around the rolls. Your kid can decorate their binoculars however they want!
3. Use a hole punch to make holes on the outside of each roll. Tie a strand of yarn, about 18-20 inches long, through each hole to create a strap to hang the binoculars loosely around the child's neck. To avoid the danger of choking, children should only use under supervision.
4. Go outside to explore and play!

Fingerplays

Use these [fingerplays](#) when in the kitchen, working in the garden, or inside on a rainy day to make connections with math.

Fingerplay songs can also be fun anytime you need a purposeful movement break.

Don't worry if your child just watches and listens at first. Little by little, you will find that they will enthusiastically join in.

Beehive

This is a beehive (hand cupped)
Where are the bees?
Hidden away where nobody
sees...

Now they come creeping out of
the hive

One, two, three, four, five (extend
fingers one by one)

Five bees!

Bzzzzzzzzzz!



Nature Finger Plays

Beehive

This is a beehive (hand cupped)
Where are the bees?
Hidden away where nobody sees...
Now they come creeping out of the hive
One, two, three, four, five (extend fingers one by one)
Five bees!
Bzzzzzzzzzz!

Five Little Peas

Five little peas in a peapod pressed
One grew, two grew and so did all the rest
They grew and they grew, and they would not stop
'til finally one day, the pod went pop!

Five Little Squirrels

Five little squirrels sat up in a tree; (Hold up five fingers)
The first squirrel said, "Well, what do I see?"
(Point to thumb)
The second squirrel said, "I see a dog!"
The third squirrel said, "I see a frog!"
The fourth squirrel said, "Let's run into the shade!"
The fifth squirrel said, "I'm not afraid!"
Then RUFF went the dog, and away the squirrels ran,
One, two, three, four, five!

Las Ardillas

Una ardilla se balanceaba sobre una rama delgadita,
Como veía que resistía, fue a llamar a otra ardilla.
Dos ardillas se balanceaban sobre una rama delgadita,
Como veían que resistía, fueron a llamar a otra ardilla ...
Dos ardillas se balanceaban sobre una rama delgadita,
Como veían que resistía, fueron a llamar a otra ardilla.
.... (sigue agregando una ardilla)

Ten Little Raindrops

One little, two little, three little raindrops,
Four little, five little, six little raindrops,
Seven little, eight little, nine little raindrops,
Ten little raindrops falling down!

Falling, falling, falling raindrops,
Falling, falling, falling raindrops,
Falling, falling, falling raindrops,
Pitter-patter, pitter-patter, splash!

Diez Gotitas de Lluvia

Uno, dos, tres gotitas
Cuatro, cinco, seis gotitas
Siete, ocho, nueve gotitas
Diez gotitas de lluvia

Nature Finger Plays

Five Little Birdies

Five little birdies went out one day over the hills and far away

The mother bird called "Tweet, tweet, tweet, tweet"

But only four little birdies came to see

(continue decreasing number of birdies)

So, the mother bird she went out one day

Looking for her birdies far away

She called to her birdies, "Tweet, tweet, tweet, tweet"

And all five birdies came back to see

Here's a Green Leaf

Here's a green leaf (show hand)

And here's a green leaf, (show other hand)

That you see, makes two.

Here is a bud (Cup hands together)

That makes a flower;

Watch it bloom for you! (Open cupped hands gradually)

Five Little Acorns

Five little acorns sitting in a tree,

Along came Mr. Squirrel, as hungry as can be.

The fall wind blew and rustled all the leaves.

Down came an acorn;

Mr. Squirrel was PLEASED!

(repeat with one less acorn each time)

Five Little Robins

Five little robins outside the door: (Hold up hand)

One flew away and then there were four (Put down one finger at a time)

Four little robins sitting in a tree;

One flew away and then there were three

Three little robins looking at you;

One flew away and then there were two.

Two little robins sitting in the sun;

One flew away and then there was one.

One little robin sitting all alone;

He flew away and then there were none.

Five Little Seeds

Five little seeds, five little seeds.

Three will make flowers; two will make weeds.

Under the leaves, and under the snow,

Five little seeds are waiting to grow.

Out comes the sun, down comes a shower.

And up come the three—pretty, pink flowers.

Out comes the sun that every plant needs.

And up come the two—silly old weeds.

(vary the numbers of flowers and weeds to practice the combinations that make five)

Scavenger Hunt



Object



Find, make or draw 10 of the 12 items from the list to be a Scavenger Scholar!

Materials

- Scavenger Hunt Grid
Print the grid or write the numbers 1–12 on a sheet of paper
- Pen, pencil, crayon, or marker
- Extra paper for drawings (optional)

How to Play

1. Look over the [scavenger hunt grid](#) (found on page 3).
2. Search for examples of the items on the list.
3. Draw an X for each item when you find it.
Hint: If you can't find something on the list, make it or draw it yourself.
4. Find, make, or draw 10 of the 12 items to win.
5. For an extra challenge, try to find everything on the list.

 of objects	2 5 blue objects	3 The number 1	4 A pattern that shows colors 
5 Something smaller than an apple	6 4 green objects	7 Something bigger than your hand	8 A group of 4 objects

Math Scavenger Hunt

Object of the Game

Are you ready for a scavenger hunt?

Find, make or draw 10 of the 12 items from the list to be a Scavenger Scholar!

Materials

- 1 Math Scavenger Hunt grid
Print the grid or write the numbers 1–12 on a sheet of paper.
- Pen, pencil, crayon, or marker
- A curious mind
- Scratch paper for drawings (optional)

Skills

This game helps us practice

- Counting groups of objects to 5
- Identifying numbers 1, 2, 3, 4, 5, and 6
- Sorting objects by size
- Comparing objects by size

How to Play

1. Look over the Math Scavenger Hunt grid.
2. Search your home for examples of the items on the list.
3. Draw an X for each item when you find it.
Hint: If you can't find something on the list, make it or draw it yourself.
4. Find, make, or draw 10 of the 12 items to win.
5. For an extra challenge, try to find everything on the list.
6. Have fun!

MATH SCAVENGER HUNT | FAMILY GAME

Math Scavenger Hunt

Find, make, or draw

1 A group of 5 objects	2 5 blue objects	3 The number 1	4 A pattern that shows colors 
5 Something smaller than an apple	6 4 green objects	7 Something bigger than your hand	8 A group of 4 objects
9 The number 6	10 A pattern that shows size 	11 The number 2	12 Something heavier than an apple

© 2020 The Math Learning Center | mathlearningcenter.org
The Math Learning Center grants permission to learners, families, and educators to reproduce these documents in appropriate quantities for educational use. While you may link to these resources, any other redistribution requires written permission.

Tips for Families

- If you don't have a copy of the scavenger hunt grid or can't print a copy right now, make a numbered list or grid from 1 to 12 on a sheet of paper. Have your child draw an X for each numbered item they find, make, or draw.
- You don't have to complete the scavenger hunt all at once. You can come back to it later.
- If your child can't find something, remind them that it's okay to make or draw it.



Change It Up

Making even small changes to a game can invite new ways of thinking about the math. Try making one of the changes below.

- Set a timer! How long did it take to find 10 items? Did it take more or less than 20 minutes?
- Make your own math scavenger hunt! Help your family find the items.

Math Scavenger Hunt

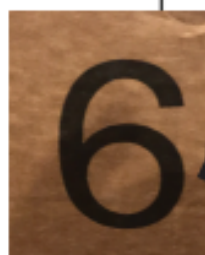
Find, make, or draw

<p>1</p> <p>A group of</p> <p>5</p> <p>objects</p>	<p>2</p> <p>5 blue objects</p>	<p>3</p> <p>The number</p> <p>1</p>	<p>4</p> <p>A pattern that shows colors</p> <p></p>
<p>5</p> <p>Something smaller than an apple</p>	<p>6</p> <p>4 green objects</p>	<p>7</p> <p>Something bigger than your hand</p>	<p>8</p> <p>A group of</p> <p>4</p> <p>objects</p>
<p>9</p> <p>The number</p> <p>6</p>	<p>10</p> <p>A pattern that shows size</p> <p></p>	<p>11</p> <p>The number</p> <p>2</p>	<p>12</p> <p>Something heavier than an apple</p>

Sample Responses



<p>of</p> <p>objects</p>	<p>2</p> <p>5 blue objects</p>	<p>3</p> <p>The number</p> <p>1</p>	<p>4</p> <p>A pattern that shows colors</p> <p> </p>
<p>5</p> <p>Something smaller than an apple</p>	<p>6</p> <p>4 green objects</p>	<p>7</p> <p>Something bigger than your hand</p>	<p>8</p> <p>A group of</p> <p>4 objects</p>
<p>9</p> <p>The number</p> <p>6</p>	<p>10</p> <p>A pattern that shows size</p> <p> </p>	<p>11</p> <p>The number</p> <p>2</p>	<p>12</p> <p>Something heavier than an apple</p>



Obstacle Course



There is a lot of math to be found in obstacle courses, from planning the course and the actions to describing the movement as you go. Have fun making and using a course of your own!

- Use household items, such as sheets, brooms, pots, tables, and chairs and/or outdoor items such sticks, rocks, and trees to create the course. Together you can design the shape of the course: will it be circular, straight or something else?
- Call out the actions using directions that develop spatial relationships; “walk over the broom,” “walk around the tree,” “step on the stick,” “crawl under the sheet,” etc.

The best part about using an obstacle course is that you can change it whenever you want!



Adapted from

<https://earlymath.erikson.edu/taking-math-out-for-a-spin-outside-activities-for-kids-that-have-math/>

Images from

<https://lovevery.com/community/blog/child-development/homebound-obstacle-course/>

[Return to Activity Grid](#)

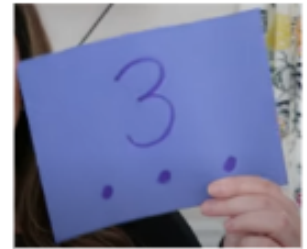
Roll to Win

Object of the Game

Roll a ball and collect cards that total the highest amount.

Materials

- 8-10 Number Cards made from paper, paper plates, etc.
Add dots to each card that match the numeral
Choose numbers 1-5, making more than one card for each number
- One ball for each player



How to Play

- Scatter the number cards on the ground.
- Players stand behind a designated starting line.
- Player 1 rolls their ball towards the scattered number cards and picks up any cards that the ball rolls over.
- Player 2 then rolls their ball and collects any number cards they rolled over.
- Players take turns rolling their ball from the place they left off until each player has rolled three times.
- If a ball doesn't roll far enough, rolls too far or doesn't roll over any number cards, that is still considered one of a player's rolls and no cards are collected.
- After each player has rolled three times, they find the total dots they have collected. Players can use the dots on the cards as support to find the sum of their numbers.
- The more that children play this game, the more strategy they can bring to it. If my brother collected 2 cards and I collected 1 card, will he always win?



Activity and images from Susans Sunday Spotlight
<https://www.youtube.com/watch?v=PmRdjORPJvg>

[Return to Activity Grid](#)

Math Walk

Every neighborhood has interesting math all around. Spark your curiosity by noticing numbers, shapes, and sizes of things when you're out and about!



Counting

- How many stairs to the front door?
- How many cars as you walk around the block?
- Use fingers to keep track of tall dogs and short dogs, changing the count to match your child's interests.
- How many stones around a tree?

Shape

- Besides windows and doors, can you find other things that have 4 sides?
- We've found many shapes with straight lines. Can we find any curved lines?



Sidewalk Chalk Number Path

Use sidewalk chalk to draw a number path. Jump and count the numbers, landing on each one.

Think about more than or less than by using the number path.

As an added challenge, collect things in quantities that match each number on the path.

This can also be set up for open-ended play.



Adapted from

<https://greenactivefamily.com/play-and-learning/outdoor-math-activities/>

Image from

<https://wildtimelearning.com/activity/how-does-jumping-help-to-count/>

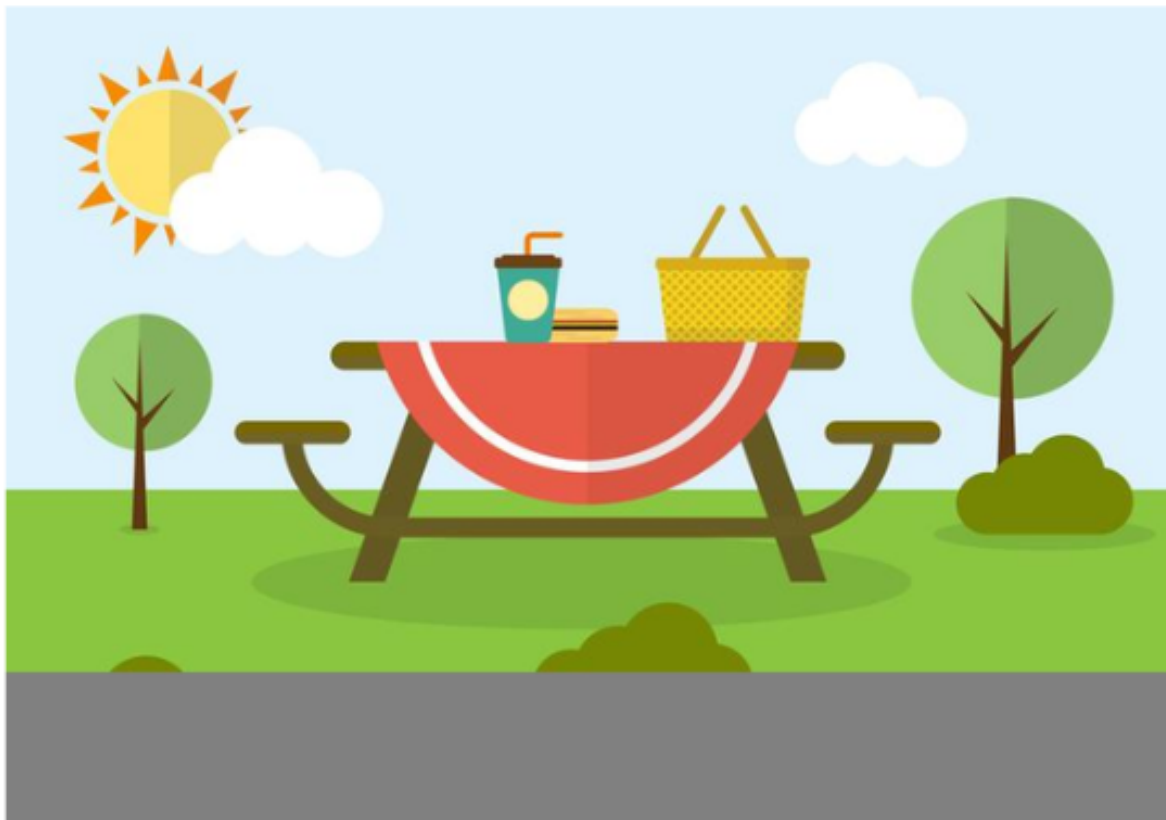
[Return to Activity Grid](#)

Plan a Picnic

Plan a summer picnic. Ask questions as you plan:

- Will there be enough drinks for everyone?
- How many sandwiches will we need to make?
- How should we share the cookies we brought?

Questions like these will support real life problem solving and estimation.



Adapted from <https://greenactivefamily.com/play-and-learning/outdoor-math-activities/>
Image from <http://www.clker.com/clipart-740671.html>

[Return to Activity Grid](#)

Freestyle Symmetry Art

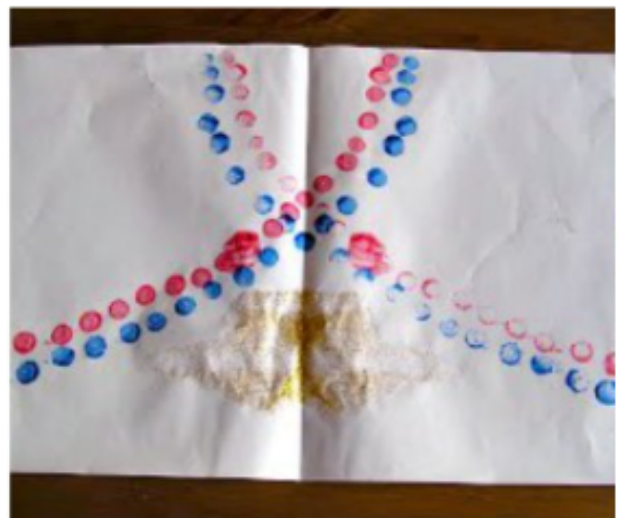
Materials

- Paper
- Painting medium of your choice (e.g., glitter glue, dot makers, regular tempura paint)

What to do

Fold the paper in half and open it back up. Paint, squirt or smash on one side of the paper. Fold the clean side over the painted side and press hard, smoothing the paper. Open the paper to find a symmetric image on each side of the fold.

Discover what symmetry is and how it works!



Activity and Images from

<https://www.whatdowedoallday.com/symmetry-art-project/>

[Return to Activity Grid](#)

Nature Mandalas

A mandala is a circular symbol which represents the universe.

Materials

- Sidewalk Chalk
- Various collected flowers and leaves

What to do

Using chalk, draw out a simple mandala wheel.

After making the outline, fill in the mandala with your petals and leaves.

You can make your design as simple or as complex as you want, matching colors or contrasting them.

After creating your mandala, talk about the mathematics you see. Did you create random patterns, repeating patterns or some of both?



Activity and images from
<https://nurturestore.co.uk/nature-mandalas-for-kids>

[Return to Activity Grid](#)

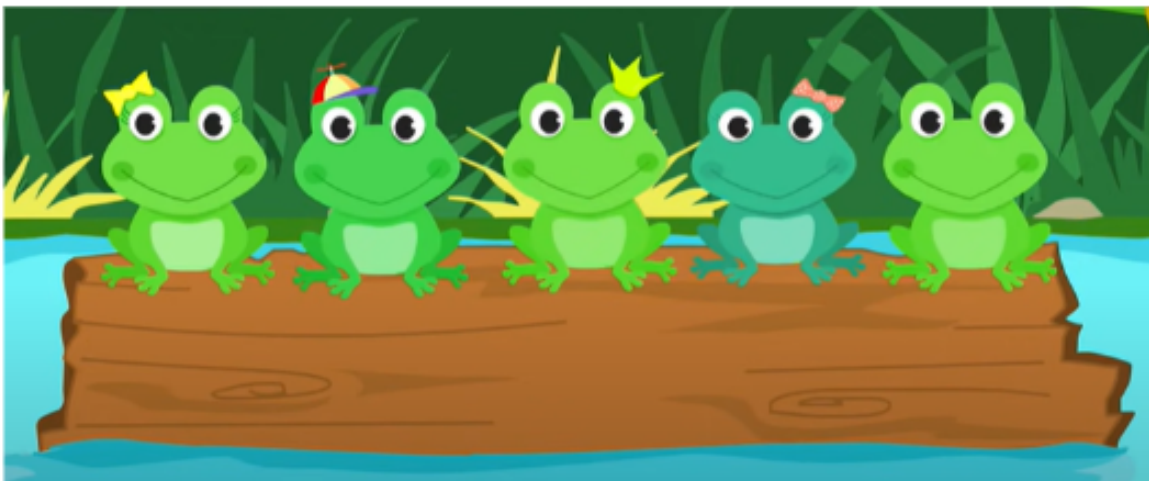
Counting Songs

Counting songs are a fun way to practice counting forwards and backwards within 10 and learn about number relationships.

Have fun learning and singing some of the following songs:

- One, Two, Buckle My Shoe
 - Listen to the tune at https://www.youtube.com/watch?v=Otf4_UEnQ8
- Ten in a Bed
 - Listen to the tune at https://www.youtube.com/watch?v=TdDypyS_5zE
- Five Little Speckled Frogs
 - Listen to the tune at <https://www.youtube.com/watch?v=rn-Bm2Jy004>
- One, Two, Three, Four, Five
 - Listen to the tune at <https://www.youtube.com/watch?v=f0l-940eqGo>

Do you know any other counting songs?



Many Shapes Picture

Materials

- Paper
- Craft foam, construction paper, or colored paper
- Scissors
- Glue or glue stick

What to do

1. Cut paper for the background - any shape you want



2. Make shapes - cut or buy various sizes of smaller shapes. Use circles, rectangles, squares, triangles, and other shapes you choose



3. Combine shapes to make a picture

4. Glue the shapes

5. Talk about the picture you made, using shape language.



Activity and images from <https://www.firstpalette.com/craft/many-shapes-picture.html>

[Return to Activity Grid](#)

Steady Beat, Rhythm, and Melody

Try some of the following activities that connect music and mathematics:

Steady Beat

- Listen to some favorite music. Emphasize the steady beat by clapping or moving to the music.
- When singing a song, emphasize the words that fall on the beat by stomping or clapping on each beat.

Rhythm - rhythm varies while the steady beat is constant

- Repeat, predict, and/or extend rhythmic patterns. For example, sing “Old MacDonald Had a Farm”. Stop after “With a moo moo here,” and wait for the child to repeat the phrase or extend the pattern of the song by adding “and a moo moo there.”

Melody - or the tune

- Use a shaker, drum, or pot and wooden spoon. Ask your child to play the instrument at a specific note of a simple song (such as on “star” of “Twinkle, Twinkle, Little Star”) as you play or sing the rest.



Adapted from

<https://www.naeyc.org/our-work/families/support-math-readiness-through-music>

Image from <https://www.kaplanco.com/ii/preschool-music-movement-learning-center>

[Return to Activity Grid](#)

More, Fewer, Less

Share a book that compares quantities like *More, Fewer, Less* by Tonya Hoban.

- Where are there more?
- Where are there fewer?
- What is there less of?
- What is there more of?

Think about your answer.

Maybe there are two answers or more.



As you look at each page, think about what it is you want to compare. You get to decide!

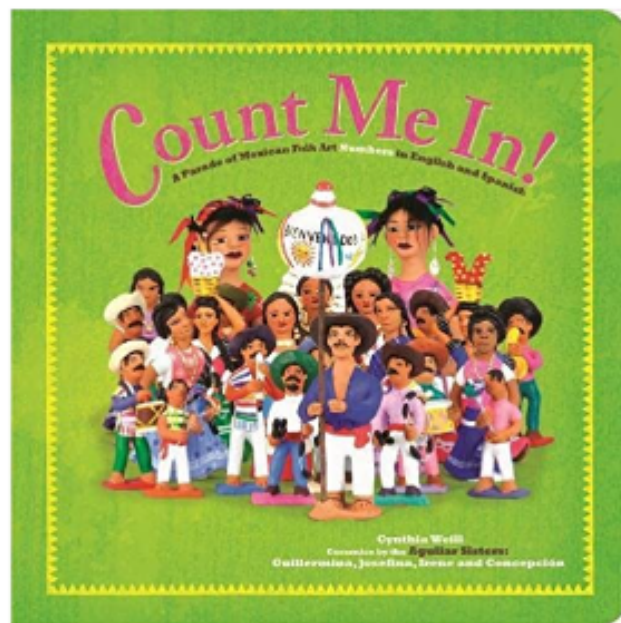
Extension: Play a game of “Capture” with your child. Use the 2s, 3s, 4s, 5s, and 6s from a deck of playing cards. Shuffle those cards and deal them evenly into 2 piles, leaving the cards face down in a pile in front of each player. Both players then flip the top card of each of their piles at the same time. The player whose card value is more “captures” the other player’s card and keeps it in a discard pile. Play ends when all the cards have been played. The winner is the player who has captured more cards.\

If this book is not available, substitute any book on the list of books [at this link](#).

Count Me In: A Parade of Mexican Folk Art Numbers

Share a counting book like *Count Me In: a parade of Mexican Folk Art Numbers* by Cynthia Weill.

Every July, people in Oaxaca, Mexico, come together to dance, sing, and make music in a festival called the Guelaguetza. The celebration is kicked off by a grand parade. Follow the parade of Mexican folk art as one person is followed by 2 then 3 then 4 (and so on) artists in this book of numbers in English and Spanish.



Be sure to ask “What else is there (three/ tres) of?”.

Extension: Fingers are great tools for counting. Roll a dot cube and ask your child to show you that many with their fingers. Can they show the same quantity in a different way? Take turns with your child. Find creative, non-traditional ways to show the number with your fingers. For example:

If this book is not available, substitute any book on the list of books [at this link](#).



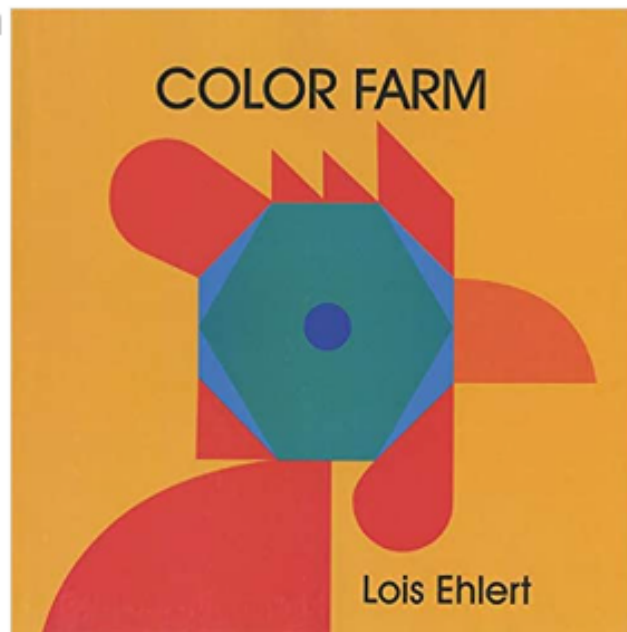
Color Farm

Share a book about shapes like *Color Farm* by Lois Ehlert.

Find different shapes. How many of each shape can you find?

Think of another animal that could be created with shapes. Cut out shapes or draw shapes to make that animal.

If you can't think of a new animal, use cut shapes to recreate one of the animals you saw in the book.



Use shape language to describe the curves, straight edges, and corners of the cut out shapes while using them to create the animal.

If this book is not available, substitute any book on the list of books [at this link](#).

Adapted from Erikson Institute Early Math Collaborative
<https://earlymath.erikson.edu/take-home-activity-cards-shapes-preschool-shape-shapes-preschool-activities/>

[Return to Activity Grid](#)

Five Creatures

Share a book about sorting or classifying like *Five Creatures* by Emily Jenkins.

Talk about each scene and ask, “What do you see?” “How are the creatures/ family members the same or different?”



Extensions:

Make your own “___ Creatures” book with categories that you come up with. Remember the number of creatures stays the same, just like in *Five Creatures*.

Or

Ask others to help and act out the *Five Creatures* book or your own book. Have fun finding ways that the creatures in your home are the same and different.

If this book is not available, substitute any book on the list of books [at this link](#).

Adapted from Erikson Institute Early Math Collaborative

<https://earlymath.erikson.edu/take-home-activity-cards-sets-sorting/>

[Return to Activity Grid](#)

Baby Goes to Market

Share a book about number relationships or patterns like *Baby Goes to Market* by Atinuke.

Compare the number of bananas, oranges, or biscuits that Baby gets from a seller at the market and how many Baby puts into Mama's basket. Is there a pattern to what happens? What do you think would have happened if Baby had gotten eight dates from one of the sellers?



Extension:

Think about how Mama and Baby's market is different from where you do your shopping. What is the same? What is different?

If this book is not available, substitute any book on the list of books [at this link](#).

Adapted from Kansas African Studies Center (KASC) University of Kansas
https://kasc.ku.edu/sites/kasc.ku.edu/files/files/Baby%20Goes%20to%20Market_pdf.pdf

[Return to Activity Grid](#)

The Number Game

Make a grid of numbers 1-10 on paper.

As you explore your house or your neighborhood, look for groups of different sizes.

Where do you see one of something? Where are there groups of two or a pair of something?

Keep looking until you have checked off all of the numbers.

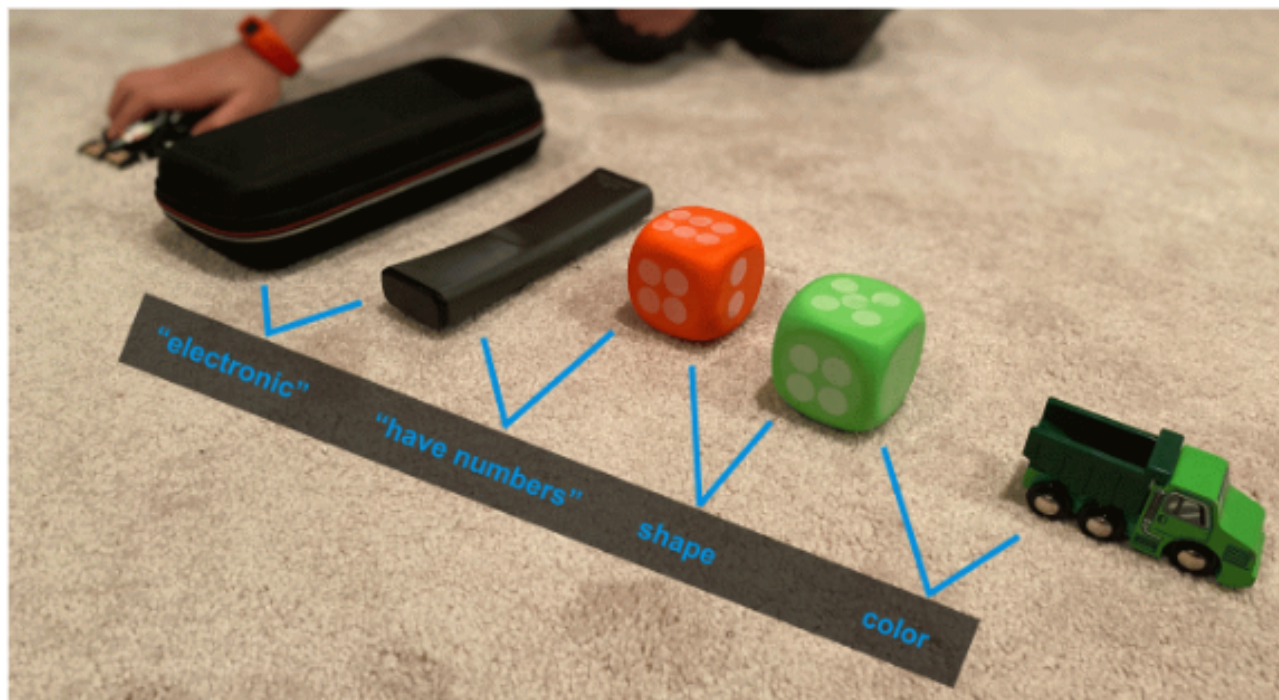
1	2	3	4	5
6	7	8	9	10

Adapted from Math Anywhere
<https://www.mathanywhere.org/printables/>

[Return to Activity Grid](#)

Crazy Train

Gather objects from around your home and lay them out on the table or floor. Choose one object to be the locomotive of your train. The next car in the train must have something in common with the one before it (same color, shape, etc).



Once your objects are “train-ed”, can you go back to the locomotive and name all of the relationships that link everything, all the way to the caboose?

Adapted from Erikson Institute Early Math Collaborative

<https://earlymath.erikson.edu/games-to-play-at-home-using-attributes-for-math-thinking/>

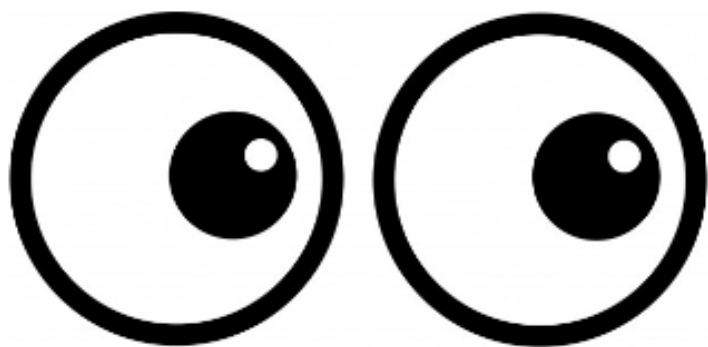
[Return to Activity Grid](#)

I Spy

To play, someone finds an object that everyone in the room can see, and describes it using one characteristic, as in “I spy something yellow,” and other players guess - “is it a banana?”

If you want to, you can make it even more math-y by using attributes that encourage mathematical thinking, such as numbers, shapes, measurement, and location words.

Note: Younger children may need a reminder that for the game to work, the item they are “spying” needs to be one that everyone can see at that moment, not something they saw in the past while in the car or out and about.



- I spy something round
- I spy something that has three parts
- I spy something bigger than my hand
- I spy something heavier than the dog
- I spy something taller than daddy
- I spy something that is a pair
- I spy something that is under the window
- I spy something wider than your arms
- I spy something half the size of you

Adapted from Erikson Institute Early Math Collaborative

<https://earlymath.erikson.edu/games-to-play-at-home-using-attributes-for-math-thinking/>

[Return to Activity Grid](#)

Number Lotería

This is a modified version of the traditional Mexican bingo game called lotería.

Object of the Game

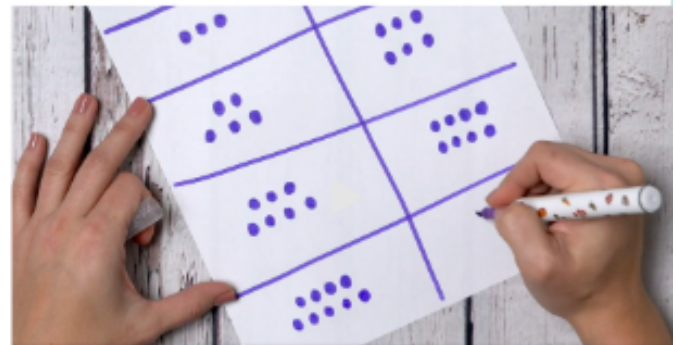
Match all of the numerals 1-10 with the correct number of dots.

Materials

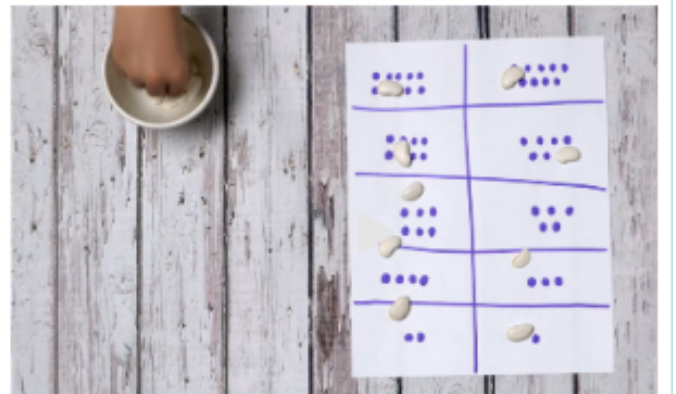
- A sheet of white paper for each player
- 10 smaller papers or index cards
- Marker, pen, or pencil
- 10 dried beans, pebbles, buttons, etc. per player to be used as tokens

To Set Up

Make a game board by dividing the white paper into ten boxes. Draw one dot in the upper left box and two dots in the box next to it. In the next row down, draw three dots. Continue on like this, finishing with ten dots in the last box.



Write the numbers 1-10 on the index cards. Mix up the cards and place them in a pile, face down.



How to Play

- Draw a number card and say the number out loud.
- Find the box with the matching number of dots in it. Sometimes counting the dots one by one will help and sometimes you might know by the pattern of the dots on the paper (especially when the number of dots is small).
- Put a bean on the matching number.
- Continue drawing number cards and finding the matching number of dots until you have matched them all!

Adapted from PBS SoCal Family Math

<https://www.pbssocal.org/education/pbs-socal-family-math/family-math-activity-play-number-loteria-to-practice-counting>

[Return to Activity Grid](#)

Fill the Cup

Object of the Game

Be the first to fill your cup.

Materials

- Objects for counting (dried beans, small blocks, grapes, crackers, etc.)
- 1 cup for each player (choose the size based on the appropriateness for the child playing and the size of the objects you are filling the cup with)
- A die (1-6).

How to Play

- Roll the die and count that same number of objects. Add the objects to the cup.
- Take turns rolling, counting, and filling until someone fills their cup to the top.



Variations

- Use two 1-6 dice and have players add the numbers on the dice to determine how many to count and put into the cup.
- Work backwards and empty the cups instead of filling them. Before you start, have players guess how many rolls it will take to empty the cup.

Adapted from frugalfun4boys.com

<https://frugalfun4boys.com/race-fill-cup-counting-game-preschoolers/>

[Return to Activity Grid](#)

PreK Math Book List

Readers - substitute any book on this list for any one of the books on your grid.

Parents - read any book with your child and discuss the math within the book.

Animal Shapes by Christopher Silas Neal
Anno's Counting Book by Mitsumasa Anno
Baby Goes to Market by Atinuke
Circle Under Berry by Carter Higgins
Count the Monkeys by Mac Barnett
Count with Maisy, Cheep, Cheep, Cheep! by Lucy Cousins
Crash! Boom! A Math Tale by Robie H. Harris
8: An Animal Alphabet by Elisha Cooper
Goodnight, Numbers by Danica McKellar
Have You Seen My Dragon? by Steve Light
Hippos Go Berserk! by Sandra Boynton
I Know Numbers by Taro Gomi
Lia & Luis: Who Has More? by Ana Crespo
Marta! Big and Small by Jen Arena
A Mousy Mess by Laura Driscoll
One Fox: A Counting Book Thriller by Kate Read
One Grain Of Rice: A Mathematical Folktale by Demi
One Happy Tiger by Catherine Rayner
100 Bugs! A Counting Book by Kate Narita
One Is a Piñata: A Book of Numbers by Roseanne Greenfield Thong
1 Smile, 10 Toes by Nelleke Verhoeff
ONE Very Big Bear by Alice Brière-Haquet
Over in a River: Flowing Out to the Sea by Marianne Berkes
Press Here by Hervé Tullet
Round by Joyce Sidman
Shape Up, Construction Trucks by Victoria Allenby
What Will Fit? by Grace Lin

Librarians - use this list to create a display of books for your Summer Math Program.